

DXATC

Dixie Applied Technology College

CAMPUS MASTER PLAN & BUILDING PROGRAM DOCUMENT
FOR THE NEW PERMANENT CAMPUS BUILDING

DFCM # 13375290 | JULY 22, 2014



Signature Sheet

REVIEW SIGNATURES

We have reviewed the Illustrative Campus Master Plan and Building Program for the Dixie Applied Technology College's New Permanent Campus Building and warrant that it adequately represents our request for a Master Plan and Program document and it fulfills our mission and program goals. The appropriate parties listed below have reviewed it for approval.

DIXIE APPLIED TECHNOLOGY COLLEGE

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Date

DIXIE APPLIED TECHNOLOGY COLLEGE BOARD of DIRECTORS

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Acknowledgements

ACKNOWLEDGEMENTS

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DXATC would like to express warm gratitude and thanks to our many supporters of the college and this initiative.

DXATC would especially like to thank the members of the Utah State Building Board, The Division of Facilities Construction and Management, the City of St. George, legislators, county municipalities, numerous local businesses, and influential leaders from across the country.

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In February 2014 The State of Utah Division of Facilities Construction and Management (DFCM) contracted Method Studio to assist the Dixie Applied Technology College (DXATC) in developing an illustrative Master Plan for their new campus and a Building Program for the New Permanent Campus Building to be located west of downtown St. George, on the site of the former St. George airport. From February through July 2014, Method Studio and their team of consulting engineers worked with the college executive staff, program directors, faculty, students, industry partners, and Board members, as well as DFCM, to develop the overall campus development organization and approach to future growth for buildings and parking, and the required program of spaces on a room-by-room basis for the proposed building. Those items are captured in detail throughout this document.

A construction cost estimate for the New Permanent Campus Building was developed based on this program document, and is included in the Project Cost Summary in Section 07. In addition to the program of spaces, the preferred stacking strategy is diagrammed in Section 05, and a refined Test-Fit floor plan for each level is included in Section 05 as well. These diagrams/plans are only conceptual, and are fully intended to be a point-of-departure for subsequent design phases. The preferred siting option (illustrated in Sections 2 and 3) was selected based on the analysis of the existing conditions and DXATC's vision for the Master Plan. Narratives of the architecture and building systems design requirements are included in Section 4. The text and graphic information in these sections are intended to be a guide for subsequent design and construction phases.



**“THE PEOPLE WHO
MADE THIS PLACE
ARE THE DOERS...”**

**WE TEACH
THE DOERS
OF TODAY.”**

A MESSAGE FROM PRESIDENT STEPHENS

When the first group of pioneer settlers arrived in this valley they came to call Dixie, the heavens opened and they were literally greeted with water. Perhaps indicative of the importance of that life-sustaining element, the rains fell for some forty days. Those early settlers came with skills and grit and went to work on two fronts that were imperative to their survival then and remain imperative to our success today: they planned dams and a canal system to capture and manage water and they established school, even in the midst of the torrential rains that welcomed them. They knew that skill development and education were critical to growing and sustaining their community. It was so then. It is equally so today.

It's been over 150 years since the valley we still affectionately know as Dixie was settled and water remains the number one concern for growth, development and sustainability. A close second is education and skill development to meet the need of industry. It is the distinct, legislatively mandated mission of the Dixie Applied Technology College to provide skill-based training and education to answer that demand for our employers as front line support of Washington County economic development.

Established in 2001, the DXATC has been fulfilling its role with limited resources in leased and borrowed space. A permanent campus, located on the bluff once home to the airport, will cement the college's ability to support Washington County now and into the future. According to the Governor's Office of Planning and Budget, Washington County population is expected to nearly double in the next 15 years, from some 148,000 in 2014 to over 280,000 by 2030 creating huge demand for an expanded pipeline of skilled workers. Smart planning for infrastructure includes supporting the DXATC in its efforts to develop a skilled workforce to sustain the growth.

Why are DXATC graduates so important? They are the designers, builders, fixers, makers, and caregivers of Washington County communities. They draw up our plans, build our homes and commercial buildings, assure that the light switches work, our fixtures flush, and our indoor temperatures stay a comfortable 72 degrees. They keep our heavy trucks on the road and repair our cars. They fix our computers and create new programs and applications. They make things beautiful. They drive innovation in our manufacturing plants and keep billions of dollars of equipment running, as they make the stuff of our lives. They fill our prescriptions, draw our blood, facilitate our medical visits, make sure our medical bills are coded correctly, administer CPR to save our lives, rescue us when we're in trouble and get us to the hospital for care. They protect us, and put out our fires.

As DXATC graduates serve our society and improve our community environment, they realize significant improvements in their own lives. Many of our students are the first in their families to earn a higher education credential, one that translates immediately to a career. Homes and families are strengthened as they do and the impact trickles down, impacting generations yet to come.

Great investments have been made in educational facilities in Washington County as evidenced by the beautiful and functional k-12 facilities that make up the Washington County School District to the resplendent campus that has grown and expanded to see Dixie College grow into Dixie State University. The missing piece remains the permanent establishment of the Dixie Applied Technology College. When built, the complementary education trio in Washington County will be complete supporting both secondary and adult students who want to improve their lives by improving their employability.

This permanent campus for the DXATC is important. It's an investment in our young people, our experienced citizens, our employers, and our community as a whole. The investment will yield high returns far into the future. Washington County will be strengthened by the establishment of this campus. We have been richly blessed by the generous support of DFCM, the State Building Board, our Washington County Legislative contingency, and also by the fine professional work of the Method Studio team. Faculty, staff, former and current students, administration, elected officials, state and community leaders, and business partners have come together under the expert guidance of Method Studio to create a shared vision for this campus. It is with a grateful heart that I'd like to acknowledge and extend my deepest appreciation to each voice that helped to shape the program presented herein.

We look forward to pioneering the work of seeing this ambitious vision to completion!

Kelle Stephens, DXATC President

Executive Summary >>
Project History & Justification



**“FORWARD THINKING.
FUTURE FOCUSED.
CAREER READY.”**

DXATC SITE: ST. GEORGE, UTAH

Over 7,000 students are enrolled in DXATC programs totaling 250,000+ membership hours. DXATC has approximately 40,000 (GSF) of current space, resulting in a UCAT low of 6 (GSF) per student or a UCAT high of 6 membership hours per GSF. This compares to a UCAT goal of 100 GSF per student, or an average of 3 membership hours per GSF (based on numbers provided in UCAT's 2013 Annual Report) for the other UCAT master planned campuses.

PROJECT JUSTIFICATION

Nation-wide technical education has experienced unprecedented growth and change over the past decade. The evolution of information exchange technology, computer integration, and hands-on and simulation-based learning, as well as changes in the global marketplace and increased population diversity, call for a dynamic approach to preparing the next generation of employees and leaders. Schools offering technical education in computers, healthcare, and trades are playing a vital role in meeting the national workforce demand for more technical staff.

Utah is no different. Utah's healthy economy is in full swing and many residents are working and benefiting from a well-trained workforce. As the economy continues to improve, and technologies and market conditions change, more workers and students will need to upgrade their skills to keep themselves and their potential employers competitive.

The DXATC has been educating and certifying students in St. George / Washington County / Southern Utah since 2001 and is quickly becoming a leader in the Utah College of Applied Technology (UCAT) network. DXATC plays an important role in meeting the region's demand for technically-trained employees and leaders. The Executive Staff, Board members, and faculty work closely with local industry partners to develop cutting-edge training programs and hands-on experiences for thousands of students annually. The College's numerous and diverse programs are in constant demand and are experiencing a high level of growth. DXATC offers both traditional format classes and Open-enrollment classes, allowing for a customized educational experience and a unique college culture.

However, DXATC's modest facilities are filled beyond capacity. Where industry partners are ready and willing to donate new equipment for training, there is no space to house it. Inadequate classroom, lab, and shop space are limiting the College's potential. With the College's service region, Washington County, one of the fastest growing communities in the nation (according to the U.S. Census Bureau), the Executive Staff and faculty foresee continued growth in enrollment and a need for purpose-built space well beyond the State's average. Additionally, the College's Diesel Technology program is located on the far north side of St. George, and the faculty and students are completely disconnected from the main DXATC core.

To continue its role as a leader in technical training in Washington County, DXATC needs a purpose-built campus and building, with adequately-size classrooms and labs, cutting-edge technology and state-of-the-art equipment. Such a facility will bring together all students, faculty, and staff under one roof, thus providing multiple modes for instructing and learning, and greater opportunities for student-to-student, student-to-faculty, and college-to-industry connections, as well as increased interdisciplinary collaboration. This will maximize visibility for DXATC, and will strengthen its programs' ability to attract and retain students and faculty. This is an investment in Washington County that the industry and community clearly needs, and one the state must make.

Project Vision

DXATC PROJECT DRIVERS

1. COMMUNITY

The community must be included in a collaborative process. This campus, these programs and the DXATC future is all about the people it serves.

2. SITE

The DXATC site is acknowledged as “one of the most beautiful sites in the world” offering magnificent views to and from the campus which must be thoughtfully considered. Envisioned as a HUB for technology, industry, and learning the future of the mesa is a blank canvas, thus long range vision is key. Scale at every level should be studied including city scale, campus scale, pedestrian and building scale. Attention to the “edges” of the mesa is essential, while the space created between buildings is also a fundamental consideration. Ingress/egress in and around site/building should be carefully studied (vehicular & pedestrian). Sustainability is a key factor with green strategies strongly desired. Opportunities for ground source heating should be included as a consideration for development. Grants will be considered to assist with solar opportunities.

3. STUDENTS

Dixie ATC students are the hope of the future; hungry for knowledge and skills, and eager for opportunities. They are confident, competent and independent. They are diverse in many aspects, but unified in purpose.

4. LEARNING STYLES

Multiple types of learning space are required from medical office to diesel technology.

5. EXISTING RUNWAY, BUILDING AND INFRASTRUCTURE

The existing airport runway provides opportunity for emergency training and must be fully integrated into the master plan as an essential component. The existing remodeled terminal building will house classrooms and offices for structural fire, wild land fire, AMT, EMT, P.O.S.T and emergency vehicle training programs though it is not necessarily a long-term component to keep this building.

It is believed that the existing site has the utility infrastructure to support initial building/development. Capacities for future growth need to be studied. District plants within specific buildings may be looped together as an option to address future growth. Though not part of the current plan, a central plant and utility tunnel system for future growth should be considered in subsequent master planning efforts.



DXATC PROJECT VISION

Dixie Applied Technology College provides an exceptional purpose; to improve lives and to be a shining example to all who aspire to better themselves and their community. The DXATC Campus and New Permanent Campus Building will represent all that Dixie Applied Technology College is and create connections for what it will become. Through-out the course of the project, the following vision and goals were established:

1. HERITAGE/FUTURE

The new Dixie Applied Technology College campus and New Permanent Campus Building will be a community icon that is rooted in its unique and significant Heritage. The building, while modern and providing hi-tech education, will acknowledge this distinct and important history while leading its students and community into the future. It will be a harmonious blend of the old and new, moving forward together to build people build community.

2. CATALYST

The campus will set the tone and character for education as well as development on the mesa creating an inviting HUB for learning in the heart of St. George. It will be a powerful tool to attract new students both in and outside of Utah. Ultimately, it will be a shining example to the community both in its purpose and its architectural expression of glass, stone and light.

3. SUSTAINABILITY

The building(s) and campus will be planned and designed in harmony with the local landscape colors of the red, green, black and brown desert climate. The campus and New Permanent Campus Building will provide a portal to unforgettable views of the city and landscapes beyond with additional opportunity to honor the elements; earth, wind, fire and water. A thoughtful connection to open green space with trails for walking and biking will further connect and ground the campus to its context.

4. HEALTH

The campus will be a center for healthy, engaged, active student life. Walking and biking paths will be woven around the campus with gathering space for students and community. Outdoor spaces will build upon the beautiful contextual landscape to complement and merge with the natural, contextual surroundings.

5. COMMUNITY EVENTS + GATHERING

The campus and New Permanent Campus Building will serve the community and build upon the "Dixie Spirit" which encompasses community and collaboration. It will be a place for community events including a rooftop terrace on the first building and a 500 person tiered auditorium (a must). It will foster existing relationships and maximize partnerships with local industry including providing an incubator space for startups – "The Launch Center". The campus will include a "working lab" for live experience and community engagement and operate as a revenue producer.

6. FLEXIBILITY

The Dixie Applied Technology Campus will be flexible to accommodate fast-paced, short-term change as a crucial component. It will also be adaptable to accommodate long-term evolution and growth.

Campus Master Plan Summary

Guided by the Project Drivers and Project Vision the Executive Staff and Method Studio developed the Campus Master Plan and Building Program detailed in this document.

CAMPUS MASTER PLAN SUMMARY

DXATC's new 30-acre campus will be located on what was once home to the St. George Airport, on the top of the mesa just west of St. George's downtown. Existing Runways, taxiways, and the terminal building all remain on the site. These existing facilities provide unique amenities for the College, and have been fully integrated into the Master Plan. The Campus Master Plan's 25 year vision suggests phased building, parking, road, and open space and community-connectivity development that is sustainable and responsive to the surrounding context of the campus and the City of St. George's future business and technology development that is planned for the land immediately adjacent to the campus.

Through analysis of UCAT Standards and study of similar institutions throughout Utah, and weighed against the projected growth of DXATC and the surrounding communities, it is clear that approximately 450,000 GSF will be required to accommodate enrollment growth (estimated average of 5%) over the next 25 years. It was determined that the 30-acre campus would support this growth for 15 - 20 years (330,000+ GSF), but for the full 25-year build-out, additional property would be needed. An effort to work with the City of St. George to secure land banks on both the north and south end of the property (5+ and 4+ acres respectively) is currently on-going.

The DXATC Campus Master Plan is intended to be illustrative and visionary in nature and purpose. However, the Master Plan suggests a campus organizational strategy that contributed significantly to determining the preferred northeast corner location and siting strategy for the initial phase of development: the New Permanent Campus Building (and related site improvements). The Campus Master Plan should serve as a guide and point-of-departure for a subsequent comprehensive master planning effort within the next 10 years.

<< Executive Summary
Building Program Summary

BUILDING PROGRAM SUMMARY

DXATC's New Permanent Campus Building was initially targeted at 170,000 total (GSF). The building will house administrative and student service functions, event center functions, classroom and specific academic program functions, and building support functions.

The featured programs will be housed in one building with two distinct wings: the east wing (Professional Trades Programs) and the West Wing (Industrial Trades Programs). The East Wing (120,000 GSF) will feature the Administration and Student Services suites, student support spaces (study lounges, cafe, bookstore, copy center, testing center, etc), a 500-person Auditorium, and flexible space to accommodate programs such as Medical Assisting, Dental, Pharmacy Tech, IT, Drafting & Design, GIS, Office Management, Graphic Arts, Culinary Arts, Landscape and Floral Design, and CATAPULT, as well as a suite of multi-purpose rooms that will support the Jobs Now/Short-Term Intensive Training (STIT) and Custom Fit programs. The west wing (targeted at 50,000 GSF) will house programs such as Diesel Technology, Automotive and Autobody, Welding, Manufacturing, and Apprentice programs (HVAC/electrical/plumbing/construction). See the visual summary on the following page for reference. A detailed Program of Spaces is included in Section 05

Detailed components for each of the major programmed areas can be found in Section 05, in the Detailed Space Area Summary, and in the Individual Space Summary, Section 06. A typical .25 (25%) grossing factor was applied to the net-square-footage (NSF) of the Professional Trades wing, and .20 (20%) grossing factor was applied to the NSF of the Industrial Trades wing to get to the final gross-square-footage amount. The gross factor is for circulation, wall thickness, utility shafts and ancillary spaces.

PROFESSIONAL PROGRAMS - EAST WING

ADMINISTRATION	9,986 NSF
PROGRAM SUPPORT SPACES	30,571 NSF
DRAFTING & DESIGN PROGRAM	5,019 NSF
IT PROGRAM	2,205 NSF
OFFICE MANAGEMENT PROGRAM	2,835 NSF
MEDICAL ASSISTING PROGRAM	10,002 NSF
PHARMACY TECH PROGRAM	1,995 NSF
DENTAL OFFICE / DENTAL ASSIST.	2,825 NSF
CATAPULT	1,596 NSF
CUSTOM FIT (COMBINED W/STIT)	410 NSF
JOBS NOW/STIT	5,586 NSF
CULINARY ARTS	1,260 NSF
GRAPHIC ARTS	1,365 NSF
FLORAL & LANDSCAPE	2,646 NSF

BUILDING SUPPORT	16,836 NSF
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CIRCULATION, WALLS/STRUCTURE	23,784 NSF
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TOTAL	118,919 GSF
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INDUSTRIAL PROGRAMS - WEST WING

DIESEL TECHNOLOGY PROGRAM	13,461 NSF
APPRENTICE PROGRAMS	10,101 NSF
OpX (MANUFACTURING OPS)	9,644 NSF
WELDING PROGRAM	3,570 NSF
AUTOMOTIVE & AUTOBODY	6,174 NSF

BUILDING SUPPORT	6,035 NSF
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CIRCULATION, WALLS/STRUCTURE	9,797 NSF
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TOTAL	58,782 GSF
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NEW PERMANENT CAMPUS BUILDING
 178,000 GSF ±

Building Program Summary

BUILDING PROGRAM SUMMARY (continued)

Based on the proposed program, the Executive Staff evaluated multiple stacking options with differing academic/training program adjacencies in relation to the planned site elements. The preferred stacking diagram (included in Section 05) resulted in a two-wing, three-story east wing (for Professional Trades Programs) and two-story, west wing (for Industrial Trades Programs) building. The proposed site is at the north end of the campus - woven in between the existing runway, east taxi-way, and main airport road. This location provides important connections to the recently remodeled DXATC classroom building (previously the Airport Terminal Building) and related existing parking lot to the south of the proposed site. The vision that this building function as a “gateway” to campus from the northern approach was a major driver as well. Thus, the preferred stacking diagram addresses a future parking lot on the north with a major entrance that directly connects to the main south entrance.

For the east wing, DXATC desired a lively programmatic presence during both the day and night. Flexible classroom space for a moderately-sized featured program (Drafting and Design) is included near the main entry on level 1 in the preferred stacking diagram. Similarly, it was imperative that Student Services and major student support spaces (cafe, bookstore, etc) were conveniently located on the main level. The preferred stacking diagram illustrates that Administration is ideally located on level 2 - at the heart of the facility, with direct visual access from the main entry, while maintaining a moderate level of privacy. The entry to the tiered 500-person auditorium is located on level 2 as well - conveniently located atop the grand staircase, and in reasonable proximity to the west wing. The event center (multipurpose rooms associated with Jobs Now/STIT and Custom Fit along with the rooftop terrace) is located on level 3 - providing spectacular views of the surrounding landscapes. Lastly, level 3 provides flexible classroom/lab space for a large featured program suite such as the Health Technologies programs (Medical Assisting, Nursing, Dental, and Pharmacy Tech programs, etc.). The balance of academic/training program spaces are located on levels 2 and 3. A basement level houses the major building support spaces such as mechanical and electrical rooms.

The west wing houses the Industrial Trades Programs, featuring direct access to the runway for vehicle maneuvering and outdoor, hands-on training. The Diesel Tech program, OpX program, Welding Program, Automotive and Autobody programs, and the Apprentice Programs all require shop space. The Diesel Tech program requires a double-height shop space. The classrooms for each of these programs are located on level 2, above the storage and building/program support spaces. The instructors' offices for each program are combined into one large office suite to maximize efficiency and opportunities for shared spaces, such as the conference room, work room, etc. Yet they have opportunities for visual connection to the shops below. The preferred stacking diagram illustrates that the main entrance is ideally located on the east side of the building, providing a direct exterior connection to the north quad/campus open space and to the east wing south entrance beyond. An elevated hallway, or “sky-bridge”, extends over the campus road (existing east taxi-way), connecting the east and west wings on level 2, near the auditorium.



<< Executive Summary Building Cost Summary

BUILDING COST SUMMARY

The preferred program for DXATC's New Permanent Campus Building calls for a 178,000 GSF building. The current cost estimate, based on the conceptual site plan and program of spaces, is approximately \$40.3 million (total construction cost). This includes both building costs (\$36.9 million) and site costs (\$3.4 million). This estimate affords an average cost of \$208 per square-foot, excluding site costs - which is in line with construction costs for comparable projects. As the building is composed of two distinct wings, the costs are separated accordingly (\$25.1 million east wing, and \$11.8 million west wing, respectively). While the cost estimate is included in its entirety in Section 07, a summary is provided below:

East Wing - Professional Trades Programs

Architectural & Structural	\$11,809,850 (\$99/SF)
Mechanical	\$4,617,030 (\$39/SF)
Electrical	\$3,571,138 (\$30/SF)
Total Construction Cost	\$25,123,018 (\$211/SF)

West Wing - Industrial Trades Programs

Architectural & Structural	\$5,460,270 (\$93/SF)
Mechanical	\$2,164,647 (\$37/SF)
Electrical	\$1,703,502 (\$29/SF)
Total Construction Cost	\$11,020,000 (\$200/SF)

Site Costs (combined) \$3,430,167 (\$19/SF)

Total Construction Costs \$40,329,689 (\$208/SF)

PROJECT NAME.....DIXIE APPLIED TECHNOLOGY CENTER OPT. C **PROJECT TOTALS**
LOCATION.....ST GEORGE, UT
ARCHITECT.....METHOD STUDIOS TOTAL BUILDING AREA 177,701 SF
STAGE OF DESIGN.....PROGRAMMING

CSI #	DESCRIPTION	EAST WING	WEST WING	SITE WORK	TOTAL
BUILDING COST SUMMARY					
02	SITWORK & DEMOLITION	\$ 426,782	\$ 324,452	\$ 2,677,829	\$ 3,429,062
03	CONCRETE	\$ 816,532	\$ 517,268	\$ -	\$ 1,333,800
04	MASONRY	\$ 1,206,419	\$ 847,353	\$ -	\$ 2,053,771
05	METALS	\$ 2,845,810	\$ 1,146,531	\$ -	\$ 3,992,341
06	WOODS & PLASTICS	\$ 805,236	\$ 182,695	\$ -	\$ 987,931
07	THERMAL & MOISTURE PROTECTION	\$ 1,286,851	\$ 891,152	\$ -	\$ 2,178,003
08	DOORS & WINDOWS	\$ 1,102,620	\$ 447,262	\$ -	\$ 1,549,881
09	FINISHES	\$ 2,711,826	\$ 1,082,038	\$ -	\$ 3,793,864
10	SPECIALTIES	\$ 243,487	\$ 83,323	\$ -	\$ 326,810
11	EQUIPMENT	\$ 706,026	\$ 173,407	\$ -	\$ 879,433
12	FURNISHINGS	\$ 84,884	\$ 31,491	\$ -	\$ 116,374
14	CONVEYING SYSTEMS	\$ 168,000	\$ 57,750	\$ -	\$ 225,750
15	MECHANICAL	\$ 4,617,030	\$ 2,164,647	\$ -	\$ 6,781,677
16	ELECTRICAL	\$ 3,571,138	\$ 1,703,502	\$ 133,784	\$ 5,408,424
SUBTOTAL		\$ 20,592,638	\$ 9,652,872	\$ 2,811,612	33,057,122
GENERAL CONDITIONS		\$ 1,235,558	\$ 579,172	\$ 168,697	\$ 1,983,427
OVERHEAD & PROFIT		\$ 823,706	\$ 386,115	\$ 112,464	\$ 1,322,285
DESIGN CONTINGENCY		\$ 2,471,117	\$ 1,158,345	\$ 337,393	\$ 3,966,855
TOTAL CONSTRUCTION COST		\$ 25,123,018	\$ 11,776,504	\$ 3,430,167	\$ 40,329,689

ESCALATION HAS NOT BEEN FACTORED INTO THE COSTS OF THIS ESTIMATE.

ESTIMATE IS FOR CONSTRUCTION COSTS ONLY, SOFT COSTS ARE NOT INCLUDED.

Executive Summary >>

Proposed Project Schedule

PROPOSED PROJECT SCHEDULE

The proposed project schedule is based on successfully securing legislative funding by March 2015. The proposed schedule below is based on a standard design-bid-build project delivery. It should be noted that a Construction Manager / General Contractor (CM/GC) or a Design-Build process may alter the schedule. Pros and cons of each delivery method should be carefully weighed in subsequent phases of the project. The proposed project schedule as follows:

Illustrative Master Plan and Program Document complete	August 2014
Donor Recognition Package complete	August 2014
Legislative Session complete	March 2015
Design Team Selection	April 2015
Design Phase start	May 2015
Design Phase complete	January 2016
Construction start (18 months)	January 2016
Construction Substantial Completion	June 2017
Owner Occupancy	July 2017



MASTER PLAN SUMMARY

DXATC's new 30-acre campus will be located on what was once home to the St. George Airport, on the top of the mesa just west of St. George's downtown. Existing Runways, taxiways, and the terminal building all remain on the site. These existing facilities provide unique amenities for the College, and have been fully integrated into the Master Plan. The Campus Master Plan's 25 year vision suggests phased building, parking, road, and open space and community-connectivity development that is sustainable and responsive to the surrounding context of the campus and the City of St. George's future business and technology development that is planned for the land immediately adjacent to the campus.

Through analysis of UCAT Standards and study of similar institutions throughout Utah, and weighed against the projected growth of DXATC and the surrounding communities, it is clear that approximately 450,000 GSF will be required to accommodate enrollment growth (estimated average of 5%) over the next 25 years. It was determined that the 30-acre campus would support this growth for 15 - 20 years (330,000+ GSF), but for the full 25-year build-out, additional property would be needed. An effort to work with the City of St. George to secure land banks on both the north and south end of the property (5+ and 4+ acres respectively) is currently on-going.

The DXATC Campus Master Plan is intended to be illustrative and visionary in nature and purpose. However, the Master Plan suggests a campus organizational strategy that contributed significantly to determining the preferred northeast corner location and siting strategy for the initial phase of development: the New Permanent Campus Building (and related site improvements). The Campus Master Plan should serve as a guide and point-of-departure for a subsequent comprehensive master planning effort within the next 10 years.

Master Planning >>
Site Analysis

MASTER PLAN SITE

The Dixie Applied Technology College is located in the hub of southern Utah, St. George, Utah. The proposed 30-acre DXATC campus boasts nearly 360° of expansive views of the adjacent geology including the Pine Valley Mountains, the Sand Dune Mountains, Zion National Park, Snow Canyon, and the Virgin Mountains.

The proposed parcel is bordered to the east by a proposed park and the edge of the mesa, to the west by the edge of another mesa, and to the south by the existing hangers remaining from the airport. The Master Plan adapts the existing runway and taxiway and integrates them into the new campus.

Adjacent to the DXATC campus, the master plan proposes future business and technology development for the 20+ acres immediately north of the DXATC campus, and for the 100+ acres just south of the campus.

Major circulation for the site and area occurs on St. George Blvd, Bluff Blvd, Main Street, Black Ridge Dr, and Indian Hills Dr. Future city roads are proposed along the south-east and south-west borders of the mesa. Primary bus routes operate to the north and north-east of the campus, including Riverside Route #2 and West Side Connector #3.

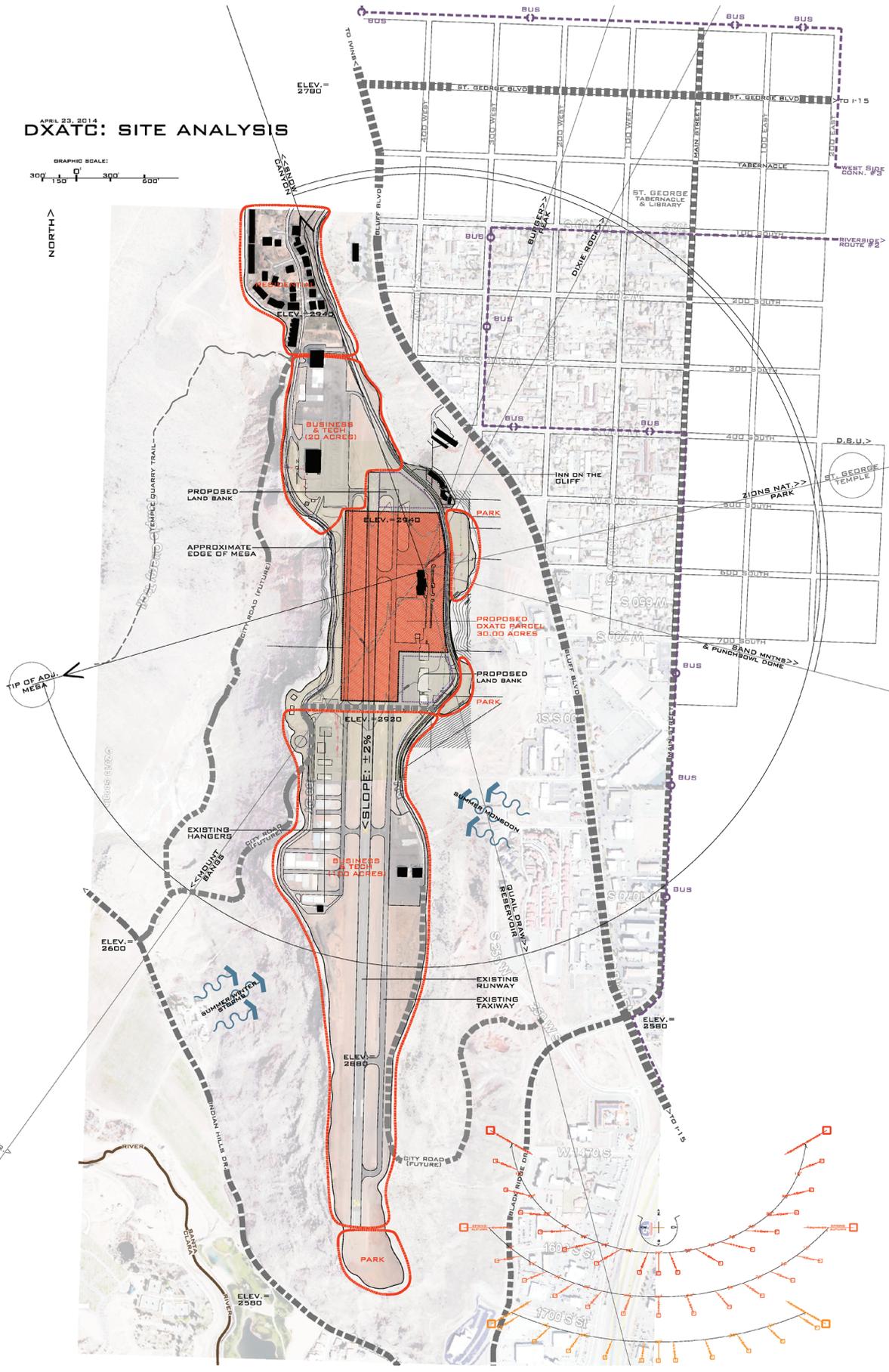


**“ONCE YOU GET THE RED,
DIXIE SAND BETWEEN YOUR
TOES, YOU’LL NEVER WANT
TO LEAVE...”**

APRIL 23, 2014 DXATC: SITE ANALYSIS



NORTH



Campus Master Plan Concept

MASTER PLAN CONCEPT

The Master Plan divides the proposed parcel into zones of use and outlines a time frame for the development of each zone. The zones include:

- > the North Gateway Zone
- > the Diesel/Manufacturing Zone
- > the Emergency Training Center
- > the South Gateway Zone
- > the Campus Center

NORTH GATEWAY ZONE

The North Gateway Zone serves as the main arrival point and first experience of the DXATC campus. It will feature the New Permanent Campus Building and will be achieved during the first phase of the Master Plan, during years 1-5.

DIESEL TECHNOLOGY / MANUFACTURING ZONE

On the west side of the campus, across the proposed new campus road from the North Gateway Zone is the Diesel Manufacturing Zone. Programs requiring immediate expansion with access to industrial processes and spaces will exist in this zone, proposed to be completed in Phase 1, during years 1-5.

EMERGENCY TRAINING CENTER ZONE

The Emergency Training Center (ETC) is a key component of the full build-out of the DXATC campus planned for years 5-15. The ETC concept is one of the fundamental drivers for locating the DXATC on the old airport site. As envisioned, the ETC will accommodate Wildland Fire programs, Structure Fire programs, Police Academy Training, Emergency Vehicle Training, as well as other related programs and events for the entire region. In addition to classroom, training, and office spaces, a large, open area for vehicle maneuvers, cone-courses, prop set-up, and other similar uses is a major component of the ETC. In the illustrative Master Plan, over 8 acres has been allocated to the ETC concept. This area allocation will need to be reconsidered in subsequent phases of campus development to align with up-to-date needs of stakeholders.

SOUTH GATEWAY ZONE

South Gateway Zone will occur during phase 3 of the Master Plan, during years 15-20. It welcomes access from the south end of the campus and hosts future expansion of DXATC.

CAMPUS CENTER ZONE

The Campus Center Zone will be developed as the life-span of the airport terminal building comes to an end. This zone will provide an opportunity to complete the campus, in terms of open space/parking development with pathways and connections between all buildings, as well as connections to adjacent city amenities, finally able to be realized. While the exact nature of the programs to be housed in the building at the campus center aren't yet determined, it is anticipated that core student and faculty services will be conveniently located at the heart of campus. Years 20-25.

PROPOSED LANDBANKS

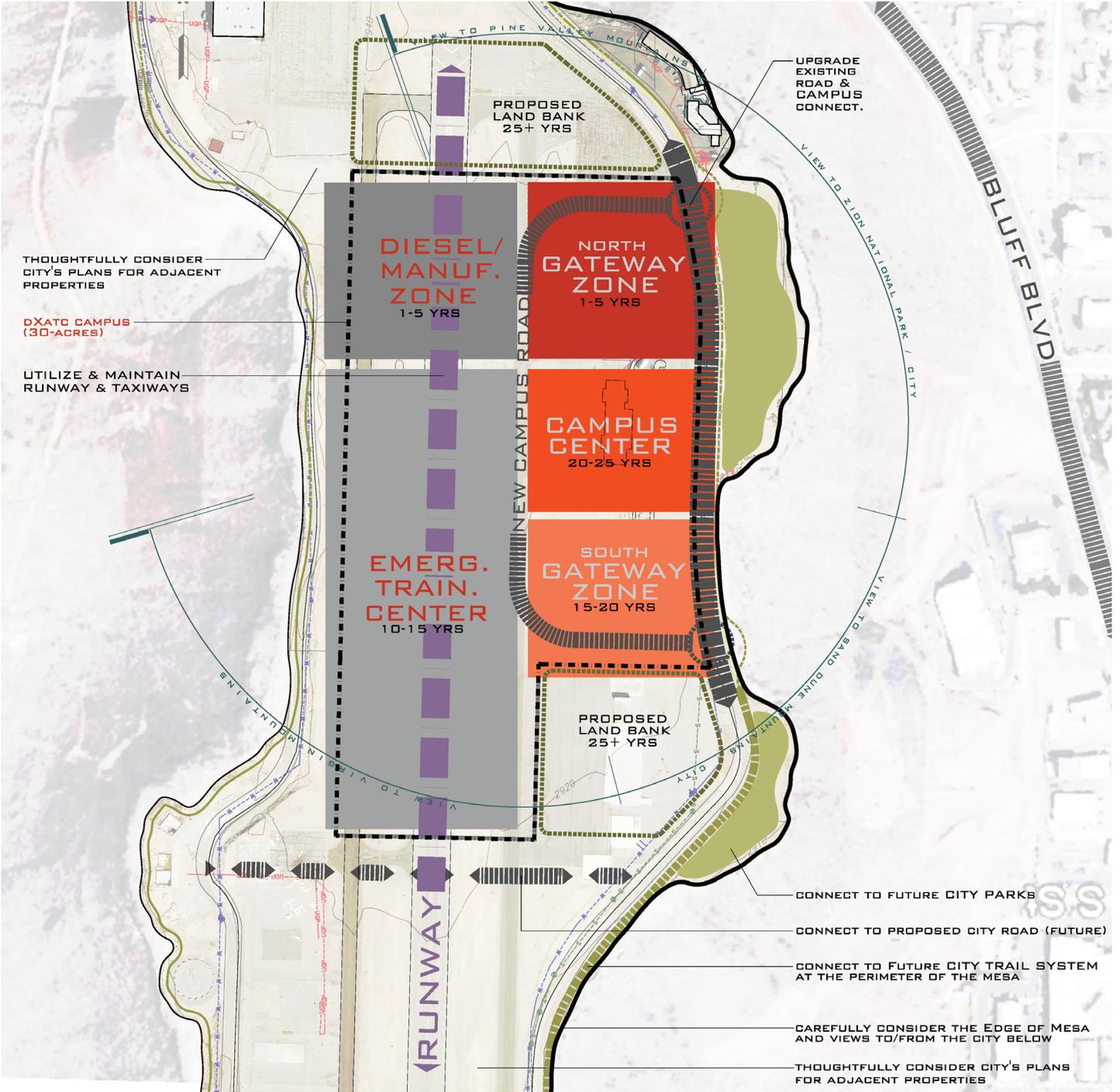
The DXATC campus as Master Planned utilizes the full 30 acres. Based on the planned density for the campus, an additional 9-10 acres (for a total of up to 40 acres) of area will be required to accommodate the full 25 year build-out of the DXATC Campus. Acquisition of additional property, i.e. "landbanks," will be required to accommodate this growth. DXATC is working with the City of St. George to secure areas at both the north end and south end of campus accordingly. Development of the landbanks will need to be readdressed in the near future to align the campus Master Plan with up-to-date needs.

VISION

- 1 Traditional campus organization with decentralized parking areas
- 2 Maximize opportunities for views from buildings and green space
- 3 Connect with city trails and parks for active, healthy living / learning
- 4 Smart building orientation for solar / wind exposure
- 5 Maximize opportunities for re-use of existing buildings / infrastructure
- 6 Thoughtfully consider connections to the surrounding communities

TOTAL BUILD OUT

450,000 GSF
700 Parking Stalls



Master Planning >> Total Build-Out Vision

MASTER PLAN CONCEPT

The Master Plan proposes a total build out of 450,000 gsf over the next 25+ years. The program includes the New Permanent Campus Building with its east and west wings, two buildings for the Emergency Training Center, and 3 buildings for future growth and expansion.

The re-purposed taxiway creates a new campus road and loop connecting to the existing South Airport Road. This road becomes the primary site access and is envisioned as a divided boulevard with bicycle lanes. Over time, the proposed land banks become the sites for decentralized parking and open space as well as for future growth.

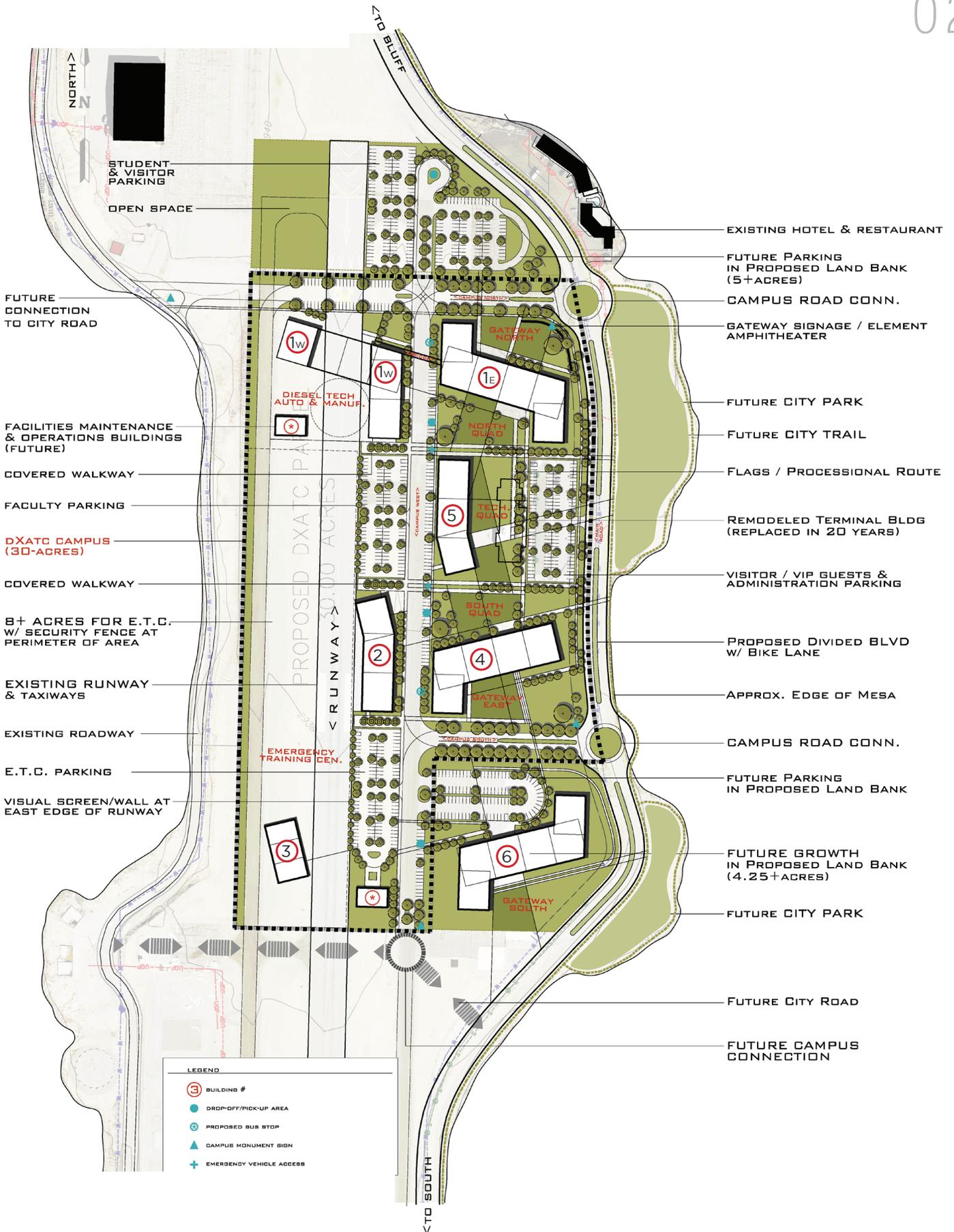
700+ total parking stalls are proposed to support the full 450,000+ GSF build-out of the campus. Parking accommodations are aggressively planned at 1 stall for every 650 GSF. The ideal parking-to-GSF ratio should be modulated with the growing needs of the campus. It is anticipated that in the initial phases of campus development, a more conservative parking stall-to-GSF ratio of 1:500 may be required. These requirements should be readdressed at each phase of campus development to align with up-to-date parking needs of the students/faculty/administrators.

SUMMARY OF MASTER PLAN PHASING

The Master Plan is intended to provide a 25 year outlook for the growth and development of the campus. Funding for new facilities is anticipated to come in periods of 5 to 10 years between new construction/development opportunities. Thus the phasing strategy illustrated on the following pages shows four major periods of development: 1. Phase 1 for the first 5 years, (including the renovated DXATC Classroom Building and the New Permanent Campus Building and related site development), 2. Phase 2. For years 5 – 15 (with the suggested development of the Emergency Training Center and related training structures/site development), 3. Phase 3 for years 15 – 20 (future building and parking to accommodate growth of programs, including development of the north landbank), and 4. Phase 4, for years 20 – 25 (future building and parking to accommodate growth of programs, as well as the improvement of the existing Airport Road into a divided boulevard). The 25 year Master Plan also includes the development of the south landbank, suggesting an additional building and related site development to complete the estimated 450,000+ GSF build-out of the campus. This phasing should be revisited every 5 to 10 years to align with the up-to-date growth of DXATC / UCAT, as well as to align with the ever-changing Long Range Development Plan for the City of St. George and the surrounding communities.

“ONE ROCK AT
A TIME...”





FUTURE CONNECTION TO CITY ROAD

FACILITIES MAINTENANCE & OPERATIONS BUILDINGS (FUTURE)

COVERED WALKWAY

FACULTY PARKING

DXATC CAMPUS (30-ACRES)

COVERED WALKWAY

8+ ACRES FOR E.T.C. W/ SECURITY FENCE AT PERIMETER OF AREA

EXISTING RUNWAY & TAXIWAYS

EXISTING ROADWAY

E.T.C. PARKING

VISUAL SCREEN/WALL AT EAST EDGE OF RUNWAY

EXISTING HOTEL & RESTAURANT

FUTURE PARKING IN PROPOSED LAND BANK (5+ACRES)

CAMPUS ROAD CONN.

GATEWAY SIGNAGE / ELEMENT AMPHITHEATER

FUTURE CITY PARK

FUTURE CITY TRAIL

FLAGS / PROCESSIONAL ROUTE

REMODELED TERMINAL BLDG (REPLACED IN 20 YEARS)

VISITOR / VIP GUESTS & ADMINISTRATION PARKING

PROPOSED DIVIDED BLVD W/ BIKE LANE

APPROX. EDGE OF MESA

CAMPUS ROAD CONN.

FUTURE PARKING IN PROPOSED LAND BANK

FUTURE GROWTH IN PROPOSED LAND BANK (4.25+ACRES)

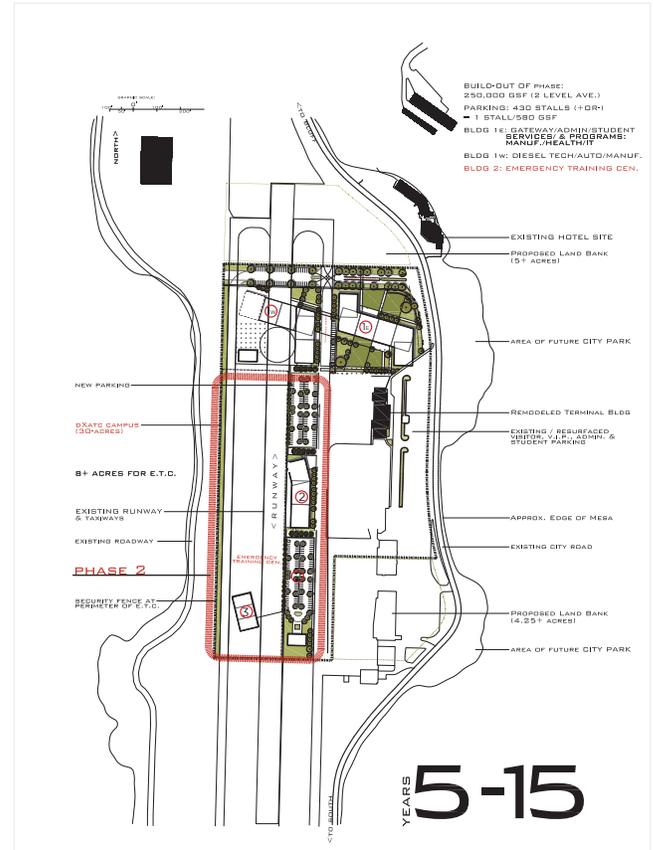
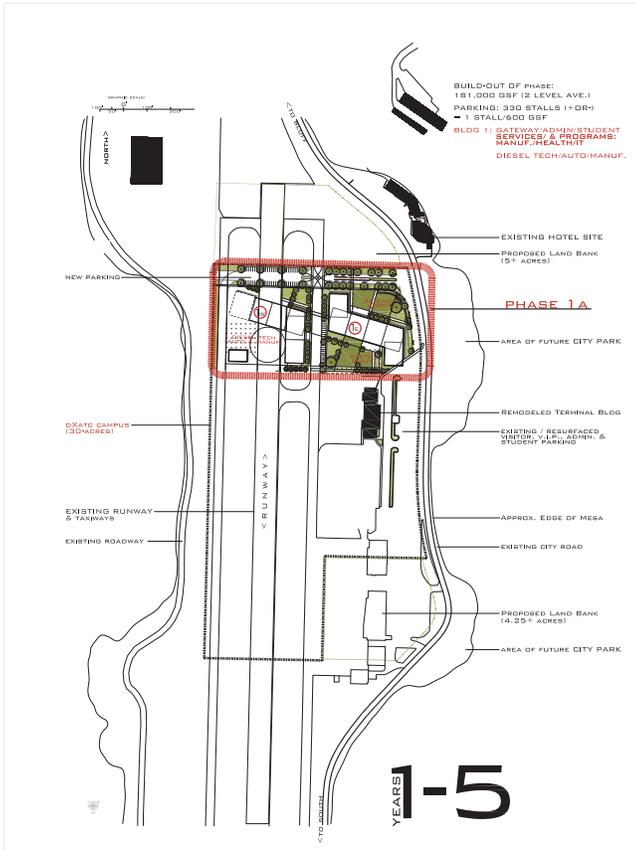
FUTURE CITY PARK

FUTURE CITY ROAD

FUTURE CAMPUS CONNECTION

- LEGEND**
- 1 BUILDING #
 - DROP-OFF/PICK-UP AREA
 - B PROPOSED BUS STOP
 - ▲ CAMPUS MONUMENT SIGN
 - + EMERGENCY VEHICLE ACCESS

Master Planning >>
Campus Master Plan & Phasing

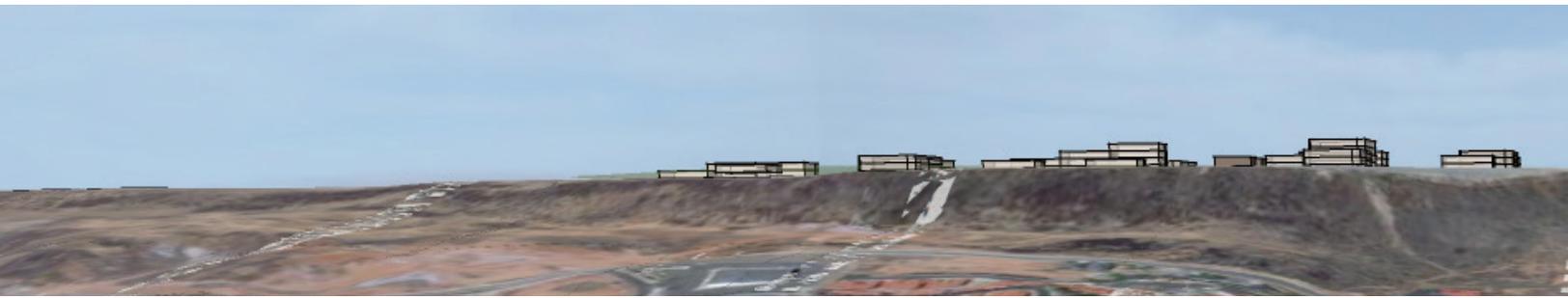


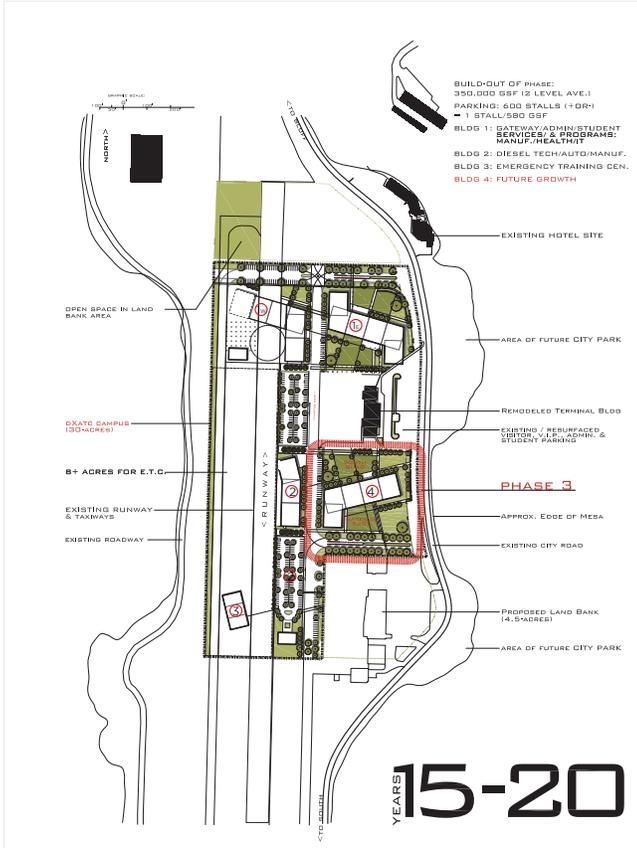
PHASE 1 : YEARS 1-5

The first part of Phase 1 includes the remodel of the existing terminal building and the resurfacing of the Visitor / VIP, Admin., and Student Parking, both currently in progress, as well as the construction of the New Permanent Campus Building. The New Permanent Campus Building is comprised of the Professional Trades and the Industrial Trades wings.

PHASE 2 : YEARS 5-15

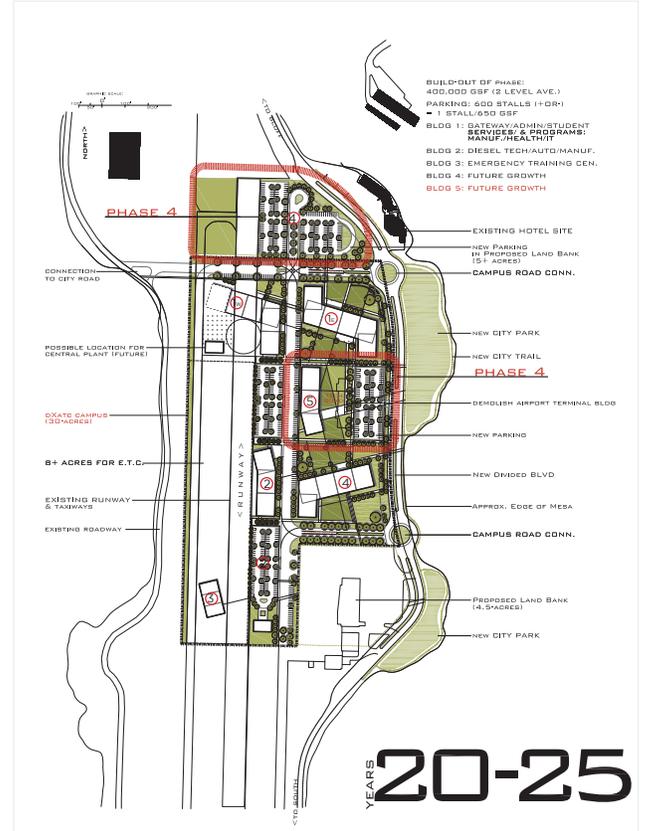
The second phase of the master plan focuses on the Emergency Training Center adjacent to the existing runway. This phase also proposes additional parking to be added north and south of the new main ETC building, as well as a perimeter security fence for the ETC building.





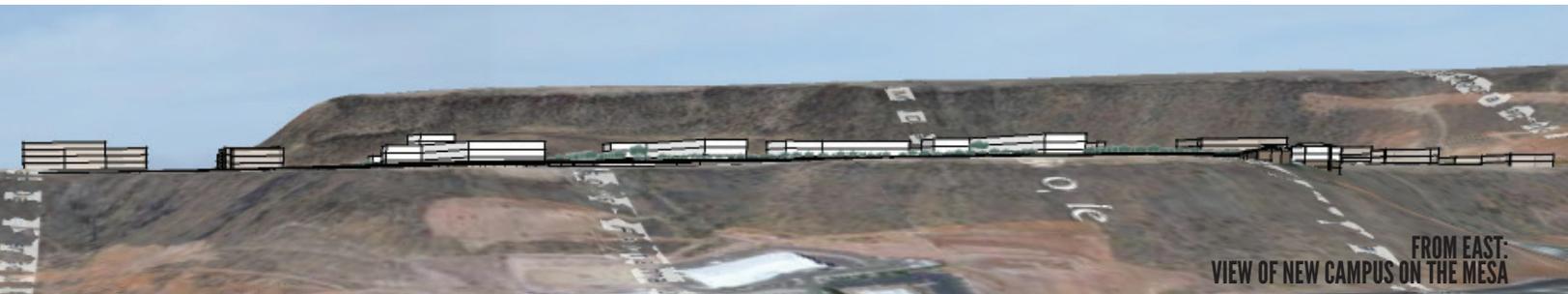
PHASE 3 : YEARS 15-20

Phase 3 begins to address future growth of DXATC and proposes a building east of the ETC, and north of the proposed road connection to the existing city road. Additional parking is addressed here as well, in the form of on-street parking along the new campus loop.



PHASE 4 : YEARS 20-25

The final phase proposed in this Master Plan includes the demolition of the existing airport terminal building and a new centralized building constructed in the central campus zone. New parking in this phase is proposed at the north end of the site, within the proposed land bank, as well as a connection to the existing western city road, at the north end of the campus.



FROM EAST:
 VIEW OF NEW CAMPUS ON THE MESA

Landscape Master Plan

MASTER PLAN LANDSCAPING

The development and implementation of outdoor spaces is crucial to the character, coherence, and comfort of the DXATC campus. The spaces between the buildings on campus form the common campus environment, and will be the medium that helps to create the identity and sense of place unique to its placement on the historic old St. George airport mesa.

While the design of outdoor spaces will be specific to the St. George climate and geography, future landscape architectural design on the DXATC campus should contribute to the creation of a safe, long lasting, and viable campus environment that will accommodate all students and all modes of student transport and traffic.

Since the DXATC campus is a central component and partner within its community, it is in a position to not only create a sustainable identity for itself, but also to serve as a model of sustainability for the surrounding community and to promote meaningful change. Future design concepts should establish the DXATC campus as a venue for living laboratories of sustainable landscape practices that focus on the reduction of energy and resource consumption.





- A** - AMPHITHEATRE GATHERING SPACE
- SITE AND SEATING WALLS
- VERTICAL GATEWAY MONUMENTS
- MAIN ENTRY PAVER PLAZA
- WATER FEATURES
- TREE ORCHARD FOR SHADE
- B** - CONCRETE WALKWAYS FOR GRADUATE PROCESSION
- BANNERS AND FLAGS ALONG PROCESSIONAL ROUTE
- LARGE OPEN LAWN AREAS
- SHADE STRUCTURES ALONG MAIN CONCRETE PATHWAYS/SIDEWALKS
- C** - OUTDOOR EATING PLAZA
- SITE WALLS
- GRAPE VINES/ORCHARD
- EDIBLE GARDEN
- EDUCATIONAL GARDEN
- D** - URBAN STREETScape
- STREET LAMP LIGHTING
- SEAT WALLS
- MODERN BENCH SEATING
- RAISED PLANTERS
- PAVER PLAZAS
- HANGING PLANT BASKETS
- E** - CAMPUS LAWN
- SITE/SEAT WALLS IN CAMPUS LAWN
- SHADE AND ORNAMENTAL TREES
- SHADE STRUCTURE ALONG MAIN CONCRETE WALK
- PAVER PLAZA AT BLDG ENTRANCE
- F** - SOUTH CAMPUS LAWN/OPEN SPACE
- SITE/SEAT WALLS IN ORCHARD AND CRUSHED ROCK PATIO
- SOUTH GATEWAY MONUMENT AND WATER FEATURE
- PAVER PLAZA AT BLDG ENTRANCE
- CONCRETE PEDESTRIAN WALKWAYS
- G** - ICONIC VERTICAL LANDMARK MONUMENT FEATURES
- CIRCULAR PAVER/ENHANCED PAVING AT ROUNDABOUTS AT NORTH AND SOUTH
- DECORATIVE PLANTINGS/COLOR /INTEREST AT BASE OF LANDMARK MONUMENT FEATURES
- H** - STREET TREES ALONG SOUTH OF DXATC CAMPUS
- PARKWAY PLANTINGS UNDER STREET TREES
- I** - FUTURE CITY PARK/OPEN SPACES
- OVERLOOKS
- CRUSHED ROCK PATHS
- ASPHALT TRAILS CONNECT TO COMMUNITY AND CAMPUS
- LARGE OPEN LAWN SPACES
- SHADE AND ORNAMENTAL TREES
- SCENIC OVERLOOKS AND DECKING

Master Planning >> **Electrical Master Plan**

CAMPUS ELECTRICAL

EXISTING CONDITIONS

The site for the DXATC campus is the old St. George Airport site with existing 3-phase power coming into the site from the east overhead. The existing power then drops down underground where it serves an existing building transformer that feed the old terminal building. The last section of the overhead line and the underground line are undersized for the new DXATC campus. These will need to be upgraded during construction of the New Permanent Campus Building.

NEW CAMPUS

During the first phase, the last section of the overhead line will need to be upgraded by St. George power. They will assess a fee to the project to upgrade the line. The first phase will then be required to provide a new underground primary service from the last overhead pole into the DXATC campus where a new medium voltage switch will be installed to serve the campus. The DXATC will be responsible to provide all primary distribution including: medium voltage switches, medium voltage sectionalizers, medium voltage cabling, and building distribution transformers. A main primary distribution trunkline shall be developed and extended as required for each phase of campus expansion. Each phase of construction must include provisions for extending and connecting the future distribution trunkline. The main distribution trunkline shall consist of a 2-way concrete encased ductbank containing not less than 4" conduits. Switches or sectionalizers shall be located at select locations where required to feed building transformers. Medium voltage cabling shall be copper MV-105 with #4/0 as the standard trunkline size and #2 as the standard transformer feed size. Refer to campus plan which shows conceptual layout of the primary distribution system.

Secondary utility metering shall be provided at each individual service for each building. A networked campus metering system shall be provided for Owner metering complying with the DFCM High Performance Building Standard for metering.

CAMPUS TELECOMMUNICATIONS

The existing facility has Century link telecommunications service; this same trunk line can be used to feed the new DXATC campus. It is anticipated that a single demark point from Century link will be provided into the Professional Trades Wing during Phase 1. The Professional Trades Wing will serve as the main telecomm hub for the initial campus build out. A telecomm ductbank shall be routed between the two wings and provisions shall be put in place for a telecomm campus backbone ductbank that can be used to route communications through campus. The backbone ductbank shall be a minimum of (4) 4" conduits with manholes or handholes as needed for distribution and pulling of cable.

CAMPUS SITE LIGHTING

During Phase 1 design a campus site fixture shall be selected for intended use as the campus site fixture. The site fixture shall be LED and may include multiple sizes or types if necessary to provide site lighting for parking areas and walkways. Each fixture specified shall include a minimum of 3 equal fixtures available of comparable look and performance to allow for competitive bidding during Phase 1 and future projects.

CAMPUS PHOTOVOLTAIC GENERATION

It is a desire of the campus to provide as much PV generation as possible given each project's budget considerations. At minimum each building shall anticipate and plan for future PV generation as part of each project.

GRAPHIC SCALE:
100' 50' 0' 100' 200'

NORTH

02



POWER/TELECOMM LEGEND	
[S]	MEDIUM VOLTAGE SWITCH
[T]	BUILDING TRANSFORMER
●	OVERHEAD POWER POLE
---	BUILDING POWER FEED
---	MEDIUM VOLTAGE TRUNKLINE
---	MEDIUM VOLTAGE OVERHEAD LINE
■	TELECOMM MANHOLE
---	BUILDING TELECOMM DUCTBANK
---	MAIN TELECOMM DUCTBANK

Master Planning >>
Civil Master Plan

INTRODUCTION

Alpha Engineering has prepared the following summary of civil site work to be completed as part of the Master Plan and Program for the development of the New Permanent Campus Building for Dixie Applied Technology Center (DXATC).

BUILDING SYSTEMS PERFORMANCE CRITERIA

The proposed New Permanent Campus Building will consist of two wings and will be located generally north of the existing terminal building at the north entrance to the project off of South Airport Drive. The site is relatively flat with a general slope of 1% and drains to the South. We understand the two wings of the proposed building will be sited such that the existing asphalt for the runway can still be utilized for activities and a training zone and that the two wings will be separated by the new central campus road. Utility infrastructure including water, sanitary sewer, natural gas, power, and telecommunications are available to the site or in South Airport Drive, directly adjacent to the east side of the site.

Following is a summary related to the utility infrastructure for the New Permanent Campus Building.

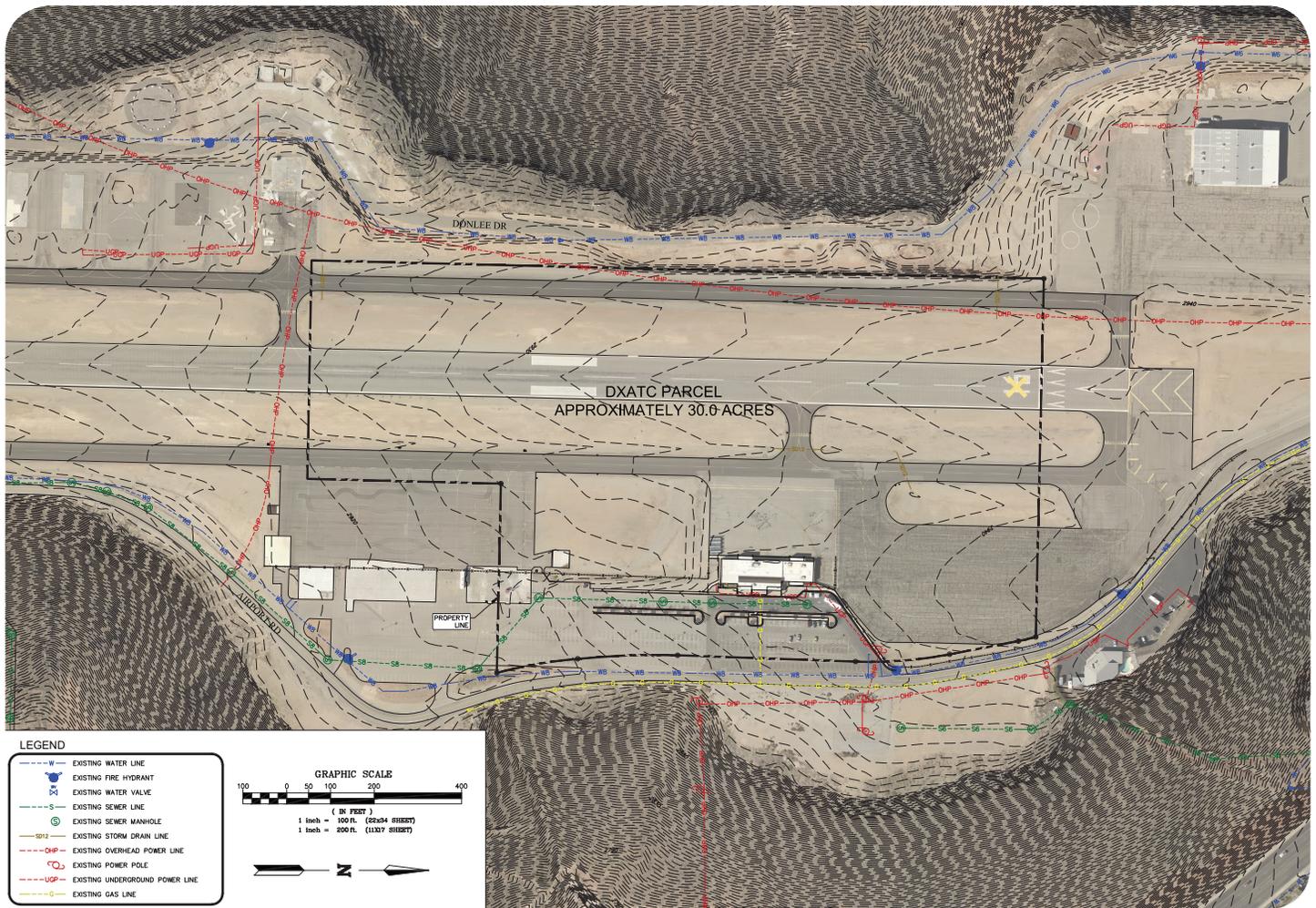


FIGURE 1

WATER

There are existing 6- and 8-inch culinary water lines on both the east and west sides of the DXATC property, which are fed from a 12-inch main line at the intersection of Donlee Drive and 265 South Street. As discussed in this Master Plan section, it is anticipated that new 8-inch water mains will be required on-site creating loops around the master-planned buildings and connecting the existing east and west lines. We anticipate the first 8-inch loop shown in Figure 2 of the Master Plan located on the North side of the proposed wings of the New Permanent Campus Building may be necessary for the construction of the new building; however this should be verified with a system model. At a minimum this loop line should be extended through the proposed construction north of the two wings and also stubbed south along the new central campus drive to facilitate future extension as the campus continues to grow. Services and fire riser connections to the new building will tie into the 8-inch main lines with the exact locations and sizes as dictated by the mechanical engineer. Fire Hydrants will also be connected to the 8-inch main to serve the new building wings.

Landscaping irrigation will be taken from the primary culinary water line as there is not a separate secondary water system in the vicinity. Backflow prevention devices approved by the City of St. George will need to be installed at all secondary connection points.

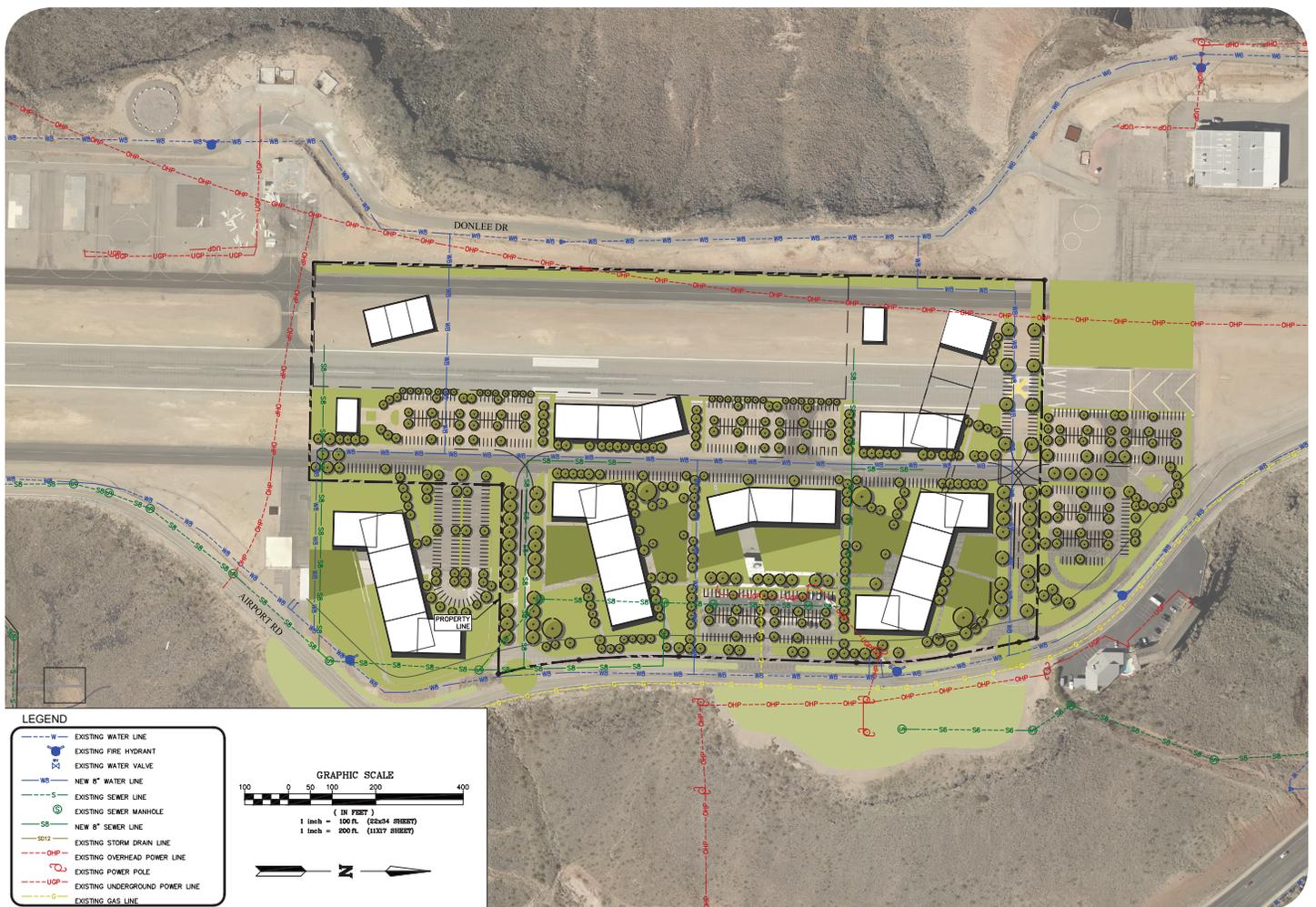


FIGURE 2

Master Planning >>

Civil Master Plan

It is recommended that the DXATC consider designing their irrigation system(s) with a loop such that if secondary water is ever made available to the property it could be easily converted.

SEWER

Two separate sewer lines exist along the east side of the property: an 8-inch line draining to the south and a 6-inch line draining to the north (see Figure 1, following page). It is anticipated that a new 8-inch sewer main will need to be constructed to serve the New Permanent Campus Building and will be extended from the existing sewer manhole in front of the existing terminal building as shown in Figure 2 of the Master Plan Document.

It should be noted that invert elevations are shallow near the existing terminal building. If this line is extended from the terminal building as recommended, coordination with the finish floor elevations of the two wings and with the mechanical engineer will be necessary to ensure proper slope is maintained per local code requirements. Extending the sewer line from the manhole in front of the terminal building may not allow for adequate depth for new buildings to the north and west. The existing sewer line may need to be lowered from the existing manhole in Airport Drive, which has adequate depth to service the new buildings to the north.

Manholes and other appurtenances will be required and coordinated with the City of St. George wastewater department. Depending on building requirements, acid tanks and/or grease traps may be required per City of St. George Standards.

POWER

Existing overhead power lines are shown in Figure 1 of the Master Plan document. It is understood, through preliminary coordination with St. George Energy Services, that single- and three-phase power is available. Depending on load requirements for the buildings, switchboxes and transformers can be installed at strategic locations to satisfy the demands. As more detailed design is completed for the site and load requirements are established, a detailed design and cost estimate of the power system bringing service to the site will be provided by St. George Energy Services.

GAS

There is an existing 3" gas main line along Airport Road east of the property with a service line running into the existing terminal building. It is anticipated that this line will be adequate to serve the New Permanent Campus Building; however gas service line size will need to be coordinated with Questar Gas when building loads are available for the two wings. Separate meters may be required for the two wings depending on service requirements.

COMMUNICATIONS

We understand fiber and cable communication lines are available at the existing terminal building. These services can be extended to the new building with the addition of communication pedestals or along master planned communications corridors. The extensions will need to be coordinated with Baja Broadband for cable and Century Link for fiber.

GRADING AND DRAINAGE

The location of the two wings of the New Permanent Campus Building on the property is located such that drainage slopes to the east, west and south. A small tributary area to the north conveys minor flows onto the proposed building site. These tributary flows will need to be routed around the building to continue through the site southward. Grading of the building and parking areas should be performed such that all flows generated on-site should be conveyed away from the building and directed to the south end of the site along the new central campus road. The building pad should be a minimum of 6 inches above the adjacent finish grade or as necessary to maintain positive drainage away from the building wings in all directions. Grading of the site should include analysis of

the parking and provide for ADA accessibility to meet current codes. Grading of the Industrial Trades wing should be completed as to maximize the use of the existing runway.

A site specific hydrology study will need to be completed as part of the building design and will determine whether detention is required for the proposed construction. As per City of St. George code requirements, detention would be required to detain all storm water flows exceeding existing conditions. In addition, mitigation may be necessary to dissipate flows and/or restore drainage conditions to pre-development conditions. The Central Campus drive should be analyzed in the hydrology study to ensure that it will safely convey



Master Planning >> Design Guidelines

DXATC CAMPUS DESIGN GUIDELINES (ABBREVIATED)

The following list of Campus Design Guidelines was developed during a workshop with DXATC, and is intended to serve as a foundation for a subsequent, comprehensive, design guidelines development process.

IMAGE & IDENTITY

- >> "A Community Icon, Rooted in Heritage" "Embracing of the Dixie Spirit" "A Modern Hub for Learning"
- >> "A Harmonious Blend of the Old and the New" "In Harmony with the Desert Climate & Landscape"
- >> "Honoring the Elements: Earth, Wind, Fire & Water" "A Center For Healthy, Engaged, Active Student Life"
- >> "Flexible and Adaptable "A Portal to Unforgettable Views" "A Shining Example to the Community"
- >> "Simple Elegance, Interesting Complexity"

HIERARCHY

Buildings should be subservient to the surrounding landscapes.

Preserving and Maximizing Views from each building should be of the highest priority.

Preserving and Maximizing the functionality of the existing Runway should be of the highest priority.

The First Building will be the North Gateway to a new Campus, and will set the tone for the first 25 years.

The Last Building will be the South Gateway to a Complete Campus, poised for success for the next 25 years.

Each Building should be in harmony with campus, but be of its own Time, Place, and Purpose.

Preserving, and thoughtfully connecting Open Spaces around and between buildings should have a high priority.

BUILDING MASSING/FORM

A combination of one, two, and three story buildings will be included on the campus.

Buildings should have an impactful presence as viewed from the community, while being sensitive to the skyline.

Simple massing and form strategies are to be respectful of the horizontal nature of the surrounding landscapes, with moments of localized verticality.

Building Massing should flow and fit with adjacent buildings, and create human-scaled open spaces that flow and fit with adjacent open spaces, and with each grouping of buildings.

Buildings fronting the main campus open space are to have elongated footprints with the long axis generally aligned with an east/west orientation for optimal solar exposure.

Buildings fronting the Runway are to have elongated footprints that have the long axis generally aligned with the Runway, with a north/south orientation for maximum connectivity to this unique amenity.

Holistic building massing and form should take precedence over individual facades.



The main level of each building should provide a base level that is engaged with the ground plane through active programs and amenities as well as visual connectivity (highly transparent).

ROOF LINES

Campus Buildings should have generally horizontal roof lines, modern and evocative of the surrounding desert landscapes.

BUILDING MATERIALS

Material palettes should be simple at both the campus and building scale.

Materials palettes from one building to the next should be in harmony, but appropriate to each building's unique purpose and time.

Materials that are in harmony with the surrounding landscapes and local heritage should be featured: in particular, red and black stone.

Material palettes should feature transparency (glass) and visual connection to/from the surrounding landscapes.

Master Planning >> Design Guidelines

BUILDING MATERIALS CONT.

Material palettes may include natural metals where detailing and patterns are softened.

Material palettes may include concrete where detailing and patterns are softened.

Applications of materials should be modern, with subtle technical components and connections where appropriate for visual interest.

ENTRIES

Major entries into each building should be oriented to the main campus open space.

Main entries should be easily identifiable.

Entries into each building should be connected, via the landscape/pathways, having a natural flow from one building to the next.

Where major entries are required on multiple sides of a building, (to provide convenient access from parking, or an adjacent building) each should generally connect to the same central common space within the building's main level.

Entries should have ample transitional, human-scaled covered space prior to entering the building, providing shade from the intense sun.

Entries should provide maximum transparency and visual connectivity to/from the programs and services provided within the building.

Each major entry should have a vestibule/air lock to minimize impact on a building's internal environment, and should have ample space and appropriate materials contributing to the reduction of dust, debris and water throughout the building.

Major building signage should be provided at each main entry.

WINDOWS

Windows are to be sized and placed for optimal performance for the programs within each building.

Windows are to be sized and placed to maximize opportunities for views and natural daylight.

Windows are to have high-performance glazing, maximizing visual clarity, while minimizing glare and solar-heat gain.

Windows are to be minimally ornamented, with head/jamb/sill details that are harmonious with each building's own character.

Windows should be provided with external solar control elements (sun-shades) appropriate for the orientation of each façade.



SIGNAGE

Way-finding and building identification must be an integral part of each phase of development.

Signage should generally follow guidelines set forth in previous paragraphs of this section, including a generally horizontal alignment, simple and harmonious material palette.

Way-finding and Building Identification Signage should be thoughtfully placed/scaled/arranged with the understanding that a constant flow of new visitors and students will be on campus at all times.

Super-sized signage/graphics are welcome where they contribute to an overall understanding of the mission and purpose of the DXATC.

Featuring one or two fonts (maximum) for way-finding and building identification will contribute to the overall unity of each building on campus.

EXTERIOR LIGHTING

Buildings should be internally lit, featuring a lantern effect where appropriate.

Lighting on Building Facades should be limited to signage and key identification features

Pathways, road ways, and parking lots should be lit with pedestrian-scaled lighting (14 feet max height).

Bollard and step lighting may be used where appropriate.

A consistent character for exterior lighting and light fixtures campus-wide is imperative

In-ground lighting is not appropriate for this campus.



02

Master Planning >> Design Guidelines

LANDSCAPE

Landscape selected is to be low water and low maintenance.

Green facades and vertical growing greenery may be used for cooling and shading of the structure and of outdoor space, where building orientation is optimal for sustained growth.

Design landscape and hardscape to reinforce wayfinding across the DXATC campus.

Incorporate shade from trees, vegetation, fabric awnings, and entry coverings.

Select materials to reduce glare and heat.



PATHWAYS

Provide adequate way-finding at gateway, malls, and pedestrian and vehicular nodes.

Establish a consistent ground plane palette of paving materials for pedestrian pathways.

Place landscaping trees and shading elements to provide consistent shading of pedestrian walkways and paths.

Provide bicycle storage and dismount zones along pathways.



EXISTING ROADWAYS

- Airport Road (east side),
- Donlee Drive (west side)
- Existing Taxi-ways

NEW ROADWAYS

Airport Road Upgrade to Divided Boulevard (+Bike Lane) with Roundabouts at campus road connections.

CAMPUS ROAD INTERSECTIONS

- New Campus Road: North, West, South (upgrade of east taxiway)
- City Road (future) south of Campus

PUBLIC TRANSIT / BUS STOP(S)

Provide 2 stops: 1 each at both the north and the south end of campus, along Campus Road



CAMPUS GATEWAYS AND MARKERS

- North Gateway Zone – Campus Monument Sign
- North Gateway Zone – Amphitheater
- South Gateway Zone – Monument Sign (future)
- South Gateway Zone – (in Land Bank)

PEDESTRIAN WALKWAYS

North/South Walkways:

Walk 1 – East - Along Airport Road/Divided Boulevard

Walk 2 – Central - Between Bldgs 1 and 4 (with Flags/Procession Route)

Walk 3 – West - Along Campus West Road (urban streetscape)

EAST/WEST WALKWAYS:

Walk 4 – North – East/West, along Campus North Road, connects Bldgs 1 & 2, ties into Walk 1 above,

Walk 5 – North - East/West, connecting Bldgs 1, 2, & 5 and interior Quads (covered)

Walk 6 – Central – East/West, connecting Bldgs 3, 4, & 5 and interior Quads (covered)

Walk 7 – South – East/West, connecting Bldgs 3 & 4, along Campus South Road

Walk 8 – South – East/West, connecting Bldgs 3 & 6 (in Land Bank)

CAMPUS BOUNDARIES

North – Aligned with north end of existing runway (Land Bank) – parking lot

East – Divided Boulevard & bike lane + perimeter campus walkway

Connections to Future City Parks / Mesa edge / walking trail

South – Future City Road, South Gateway Building Zone

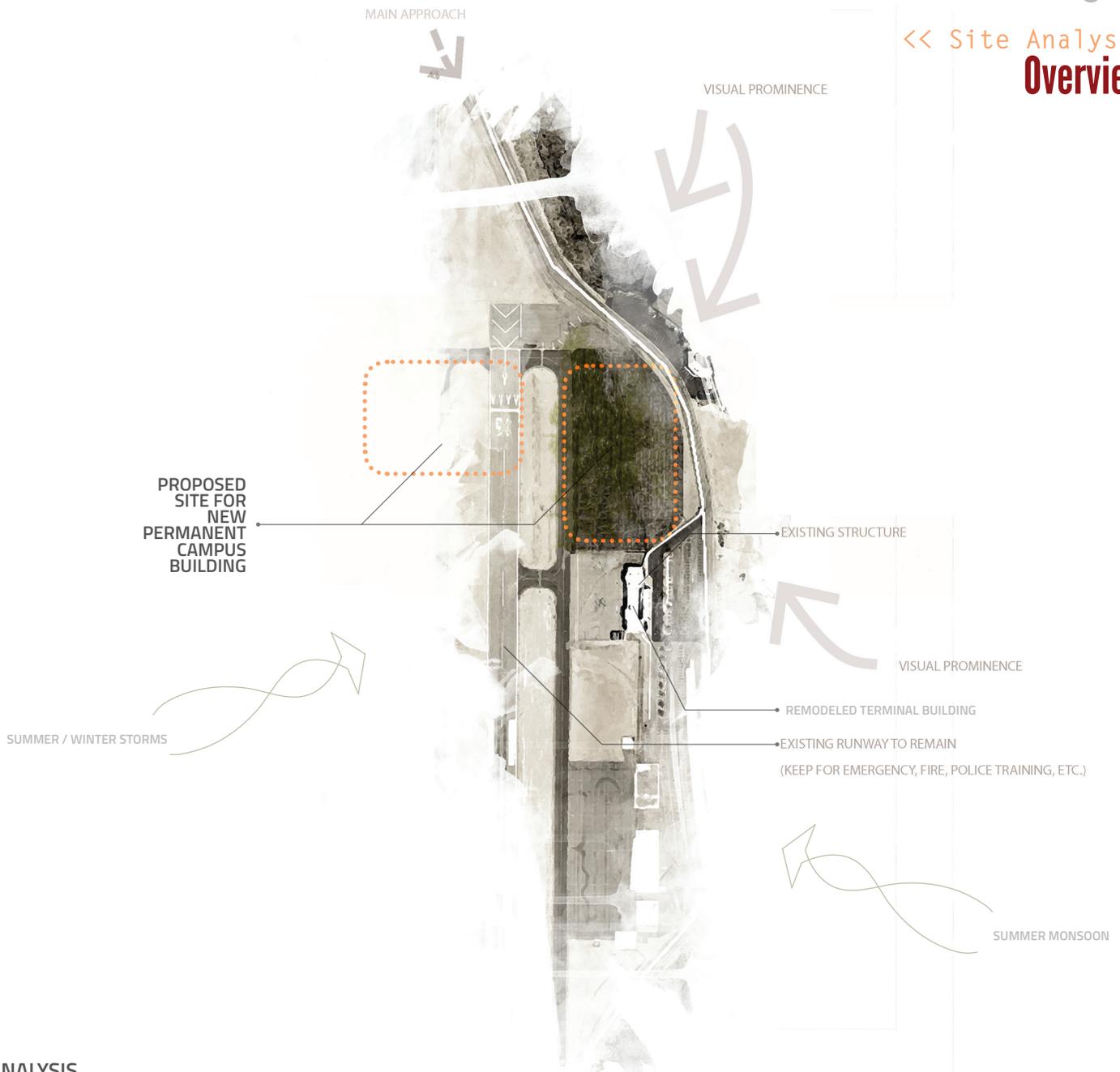
West – Open space between Donlee Drive and west taxi-way/Runway (E.T.C. security fence)

PARKING

700± Stalls (at 1/stall per 650 GSF for 450,000± GSF Total Build-out) – includes 14± HC Accessible Stalls (2% of total per IBC 2012 chapter II)

North Lot	– Students & Visitors + Shared w/ City	(200± Stalls)
East Lot	– Administration, VIP Visitors & Guests	(100± Stalls)
South Lot (in proposed Land Bank)	– Students, Faculty, Visitors & Guests	(100± Stalls)
West 1 (north) lot	– Faculty & Students	(100± Stalls)
West 2 (south) lot	– Emergency Training Center Faculty, Student, & Guests	(100± Stalls)
Street parking 1 (Campus North)	– Faculty, Visitors, & Guests	(50± Stalls)
Street parking 2 (Campus West)	– Faculty, Visitors, & Guests	(50± Stalls)





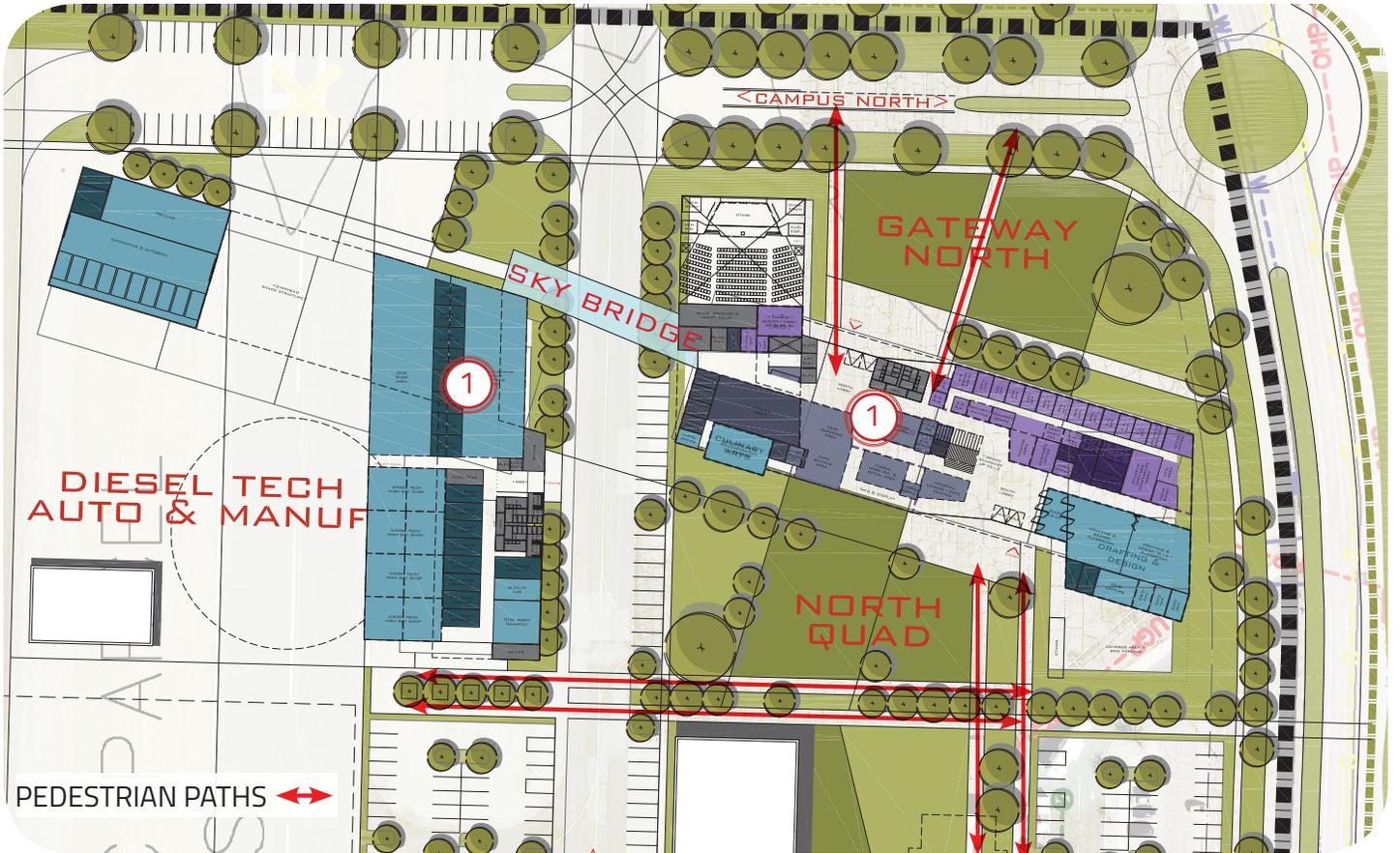
ANALYSIS

The site analysis portion of the program document identifies the impact of the site on the program, project budget, and schedule. It identifies the physical characteristics of the direct building site and the surrounding geographical region. The analysis includes diagrams, maps, and photographs to illustrate key features including: site topography, site climate, pedestrian and vehicular circulation, view corridors, and key physical and visual adjacencies. The site analysis for the programming phase is intended to be a useful tool for the design phase of the project.

LOCATION

Dixie Applied Technology College's New Permanent Campus Building will sit on the northern half of the proposed 30-acre DXATC parcel and will be the first building to be constructed of the proposed Master Plan. To the east of the site is a proposed city park, while on the west the existing runway will remain to serve the Emergency Training Center. The primary approach to the New Permanent Campus Building will occur from the North, on South Airport Road. In determining appropriate siting of the new building, particular care is given to the visual prominence both to and from the city of St. George.

Site Location & Planning Principles



PROPOSED DXATC SITE

SITE SUMMARY

The New Permanent Campus Building sits oriented and opening towards the north gateway to the campus. The Professional Trades Wing of the building is located adjacent to S. Airport drive, re-envisioned as a divided boulevard. The Industrial Trades Wing is located across the new central campus road, connected by bridge to the east wing. Immediately adjacent to the west of the Industrial Trades Wing is the former St. George Airport runway, re-purposed as a vehicle maneuvering zone for the Diesel Technology and Automotive Manufacturing programs.

OUTDOOR SPACES

The 30-acre proposed parcel affords many opportunities for outdoor space across the campus. The intent of the Programming Team is to achieve the goals on open space and pedestrian paths, presented in the Master Plan, in connecting the wings of the new building as well as connecting to future buildings and functions on site.

LANDSCAPE

The landscaping of the site will be used as a unifying element between buildings and throughout the development of the campus identity as a whole. It is the intent of the Programming Team to implement regional and water-wise landscaping, utilize landscaping strategies for climate control, and achieve maximum human comfort through the execution of the landscape design. See the Landscape Design Criteria in section 04 for more information.

CLIMATE DATA
ST. GEORGE, UTAH

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
RECORD HIGH (F°)	72	84	91	100	108	115	117	113	109	107	88	75	117
AVERAGE HIGH (F°)	54	59	67	75	86	96	101	99	92	78	63	52	77
AVERAGE LOW (F°)	31	35	42	49	59	67	75	73	63	50	38	31	51
RECORD LOW (F°)	-11	1	12	18	20	35	41	43	25	20	4	-4	-11
PRECIPITATION (IN.)	1.38	1.26	1.18	.55	.21	.17	.48	.76	.57	.68	.71	.85	8.8
SNOWFALL (IN.)	0.7	0.3	0.2	TR	0.0	0.0	0.0	0.0	0.0	TR	.01	0.1	1.4
AVE. PRECIP DAYS	5.2	6.1	5.3	3.6	2.2	1.5	2.9	3.5	2.6	3.7	3.5	4.5	44.6
AV. SNOWY DATES	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.9
PREVAILING WIND DIRECTION (FROM)	E	ENE	ENE	W	W	W	W	ENE	ENE	ENE	E	E	ENE
(MPH)	< 28	< 17	< 9	> 19	> 24	> 10	> 21	< 7	< 13	< 11	< 15	< 20	< 16

CLIMATE/ORIENTATION

The New Permanent Campus Building sits at an elevation of 2,900 ft, oriented along an axis running predominantly northwest to southeast. Prevailing summer and winter storms approach the site from the southwest with prevailing annual winds approaching from the east and northeast. Average wind speeds for the area are 2.1 mph with maximum wind speeds at an average of 18 mph.

St. George's low elevation and southwest desert location produce warm average temperatures through winter and hot temperatures through summer. The average high temperature in winter is 52° F and is 102° F in the summer. Average low temperatures are 31° F for the winter and 75° F for the summer. Annually, the average precipitation is 1.36" in the winter months and .17" during the summer months. Snowfall is mild, and normal seasonal snowfall is about 1.4".

PARKING

Across the DXATC campus, the Master Plan proposes a total build-out of 450,000 GSF with 700± parking stalls located across the site. Visitor and VIP parking for the New Permanent Campus Building will be located south of the Professional Trades Wing, with access off of South Airport Rd. Faculty and student parking will be located just south of the Industrial Trades Wing with access and additional parking located off the adjacent new campus road. Decentralized parking is planned to accommodate future phases of the master plan and is integrated to serve all buildings across the campus. Event parking has been considered and the suggested count/locations illustrated will contribute to accomodating event parking needs. Consideration for parking for other non-ATC uses should be considered in future deisgn phases.

VEHICLE TRAFFIC FLOW

Primary vehicular access for the site is along South Airport Road; most traffic is anticipated to come from the north east side of the mesa. Secondary vehicular access may be provided from the southern end of the site, in the future, on a City of St. George proposed collector road. Additional future access is proposed through a major collector road connecting to Dixie Drive, on the west side of the site. (See city of St. George Master Plan, not included)

PEDESTRIAN TRAFFIC FLOW

Pedestrian traffic will initially be concentrated on three main axes connecting the wings of the New Permanent Campus Building to main parking areas and to each other until more elements of the DXATC master plan are completed. As the campus begins to fill, main pedestrian traffic will likely evolve to internal pedestrian walkways connecting the various functions across campus. Future potential for pedestrian connections to downtown St. George remain viable with the development of the city trail along the edge of the mesa.

Site Analysis >>
Site Views



^VIEW 01
North view corridor.



^VIEW 02
Northeast view corridor.



^VIEW 04
South view corridor



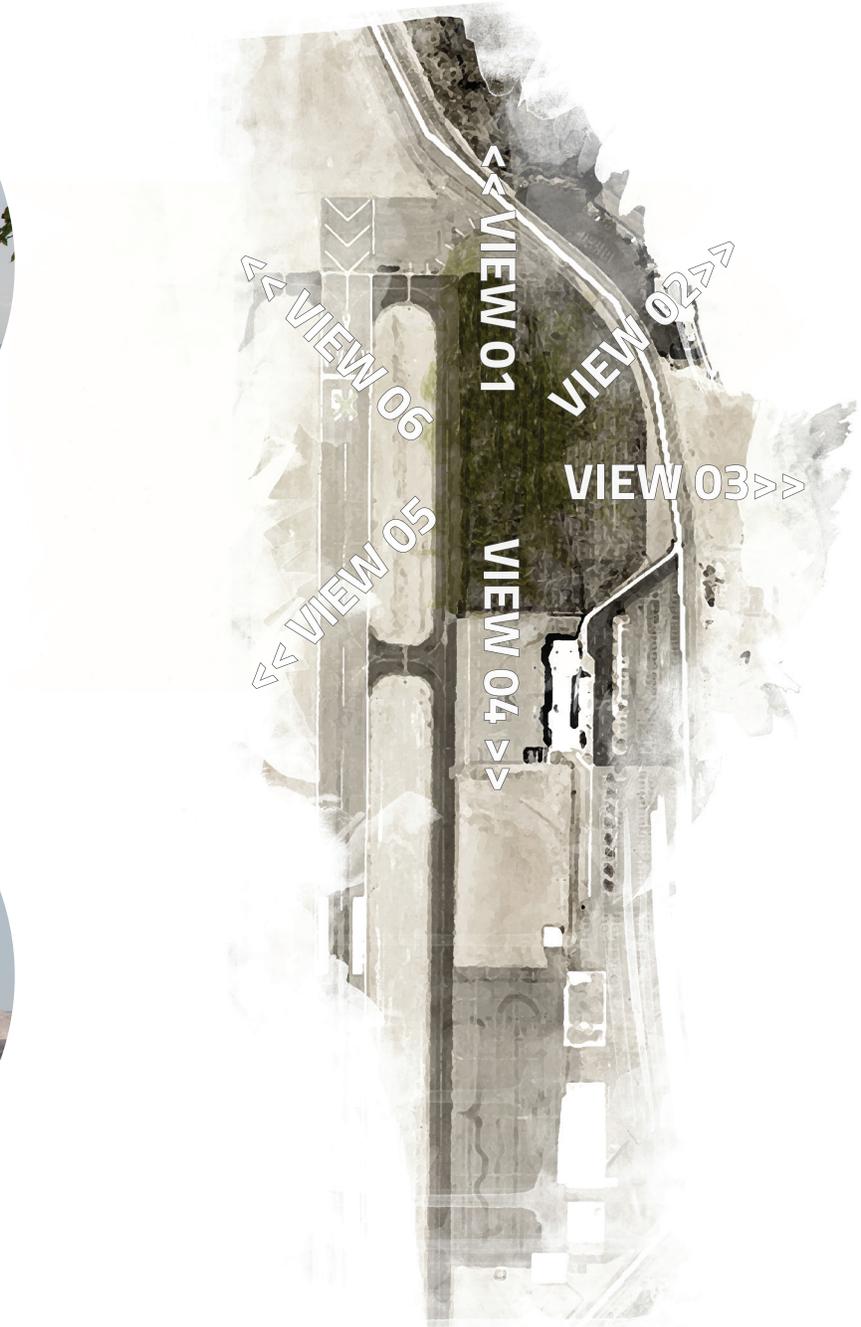
^VIEW 05
Southwest view corridor.



^VIEW 03
East view corridor.



^VIEW 06
Northwest view corridor.



03

Site Analysis >> Site Views



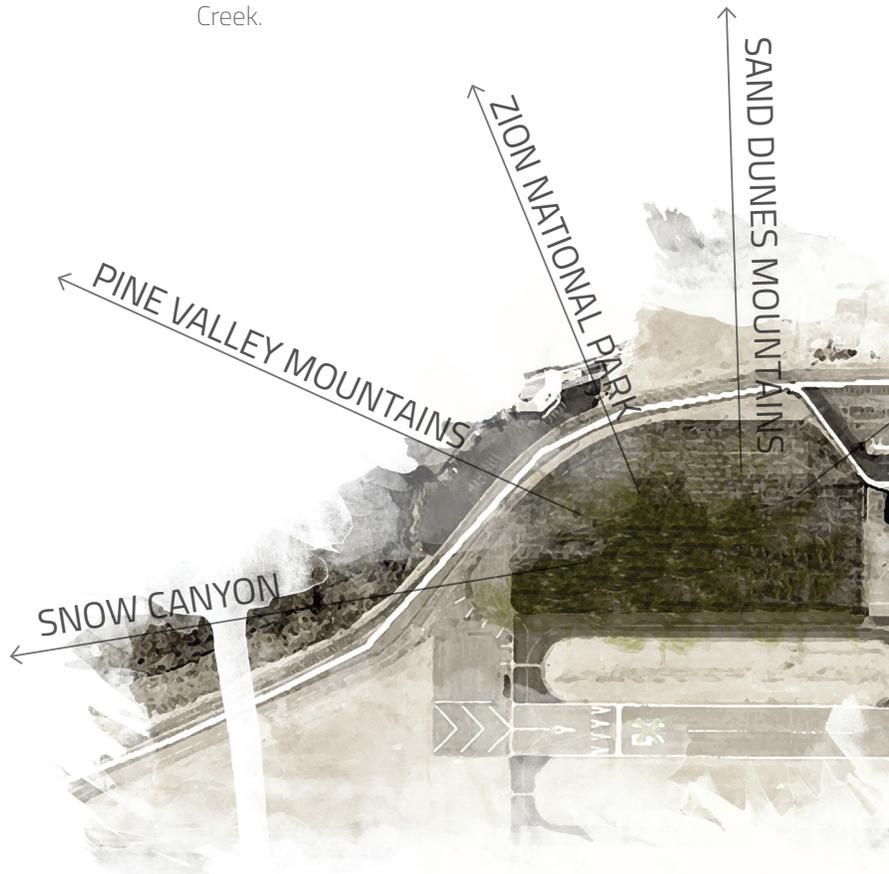
SNOW >
CANYON

Ancient lava flows, red Navajo sandstone cliffs, lava caves, sandstone arches, and scenic overlooks.

PINE VALLEY >
MOUNTAINS

High, lush green, forested mountains, Santa Clara River, Leeds Creek.

< HOTEL & RESTAURANT
Recently remodeled.



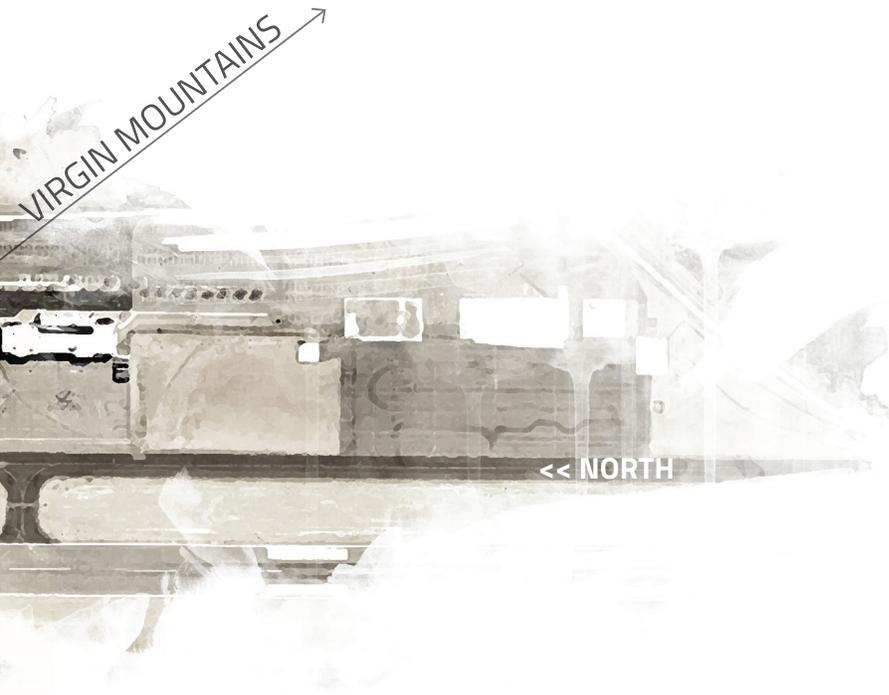


↳ <ZION NATIONAL PARK
Zion Canyon, Kolob
Canyons, Kolob Terrace,
Coral Pink Sand Dunes,
Misery Gulch.

↳ <SAND DUNES
MOUNTAINS
Sand dunes, sand
beaches, red sandstone,
warm blue waters.

> <VIRGIN MOUNTAINS>
Virgin River Gorge, red
rock walls, Virgin Peak,
Mt. Bangs.

↳ <DXATC
CLASSROOM
BUILDING
(Remodeled
Terminal
Building)



<< Building Requirements Architectural Narrative & Vision



BUILDING DESIGN

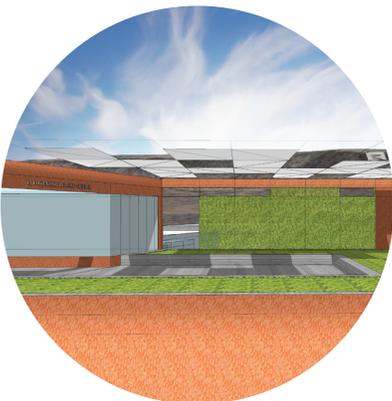
Dixie Applied Technology College has a once-in-a-lifetime opportunity to implement an architectural vision for their first building on a new, beautiful campus in the heart of St. George. From the very outset of master planning and programming, the architectural vision for the project has been a core part of the discussion, in summary: The Permanent Campus Building must be designed to be a community icon, rooted in the community's heritage, and in harmony with the red and black rock landscapes and desert climate. The building will be exemplary of modern, high-tech education... a catalyst for the college, and the City's development on the mesa. It must be a hub for learning, and a center for healthy, active student life. The building will be an event center, open and inviting for industry partners and future employers. Flexibility and adaptability are design imperatives aligned with the dynamic nature of the college and the programs it offers. Ultimately, the New Permanent Campus Building will function as a Gateway to DXATC now and into the future.



BUILDING MASSING

DXATC's New Permanent Campus Building will feature two wings: The East Wing for Professional Trades Programs, and The West Wing for Industrial Trades Programs. The East Wing will be a three-story structure, with classrooms, labs, and offices taking full advantage of the one-of-a-kind views of the surrounding landscapes. The East Wing will also house the major student/program support spaces such as the 500-person auditorium, the cafe, the bookstore, testing center, etc. Administration and Student Services will also be housed in the East Wing. A Sky Bridge will connect the East Wing to the West Wing. The West Wing will be a two-story structure, with shops taking advantage of their immediate adjacency to the existing runway. The West Wing will house the shops, classrooms, labs, and offices for Diesel Tech, OpX (manufacturing operations), Apprentice programs, Welding, and Automotive and Autobody programs. This massing strategy will allow for a single, multi-winged building that connects the recently remodeled classroom building (previously the Airport Terminal Building), and the existing parking, runway, and taxi-ways all through a traditional campus quad/open space as illustrated in the Master Plan in the previous section.

Early concerns about excessive building height were alleviated simply by the distance between the edge of the mesa and the east face of the campus buildings based on standard master planning practices - which succeeded in limiting the impact on short range views from the residential neighborhoods directly below the mesa. While at the same time, the new building (and future buildings) will have a presence when viewed from afar as desired.



BUILDING ORIENTATION

DXATC's New Permanent Campus Building is oriented to take full advantage of the views of the surrounding landscape, while at the same time creating multi-scaled open spaces between future campus buildings. Additionally, a generally east-west orientation for the building's long axis will contribute to an energy-efficient building by limiting western exposure to the extent possible. The north side of the building will function as the gateway and ceremonial entrance to the DXATC campus due to its highly visible nature when viewed on approach from the mesa's only access road. The south facade will front the quad/campus open space and the recently remodeled Classroom Building, and will function as the actual front door to the building now and for the life of the building. The east side of the building will provide an opportunity to create a presence and the image/identity for the DXATC Campus to the surrounding communities as it is highly visible from all around St. George.

Building Requirements >> Architectural Narrative / Vision

NATURAL LIGHT AND VIEWS

DXATC desires maximum daylight and views into all appropriate spaces to the extent possible with few exceptions (the auditorium, mechanical rooms, storage rooms, etc) thoughtfully controlled daylight will be welcomed. As noted in the previous paragraphs, the building orientation/siting strategy leverages access to views and natural light. Furthermore, the relatively narrow footprint illustrated in the Test-Fit floor plans exemplifies an approach that maximizes opportunities for view and natural light to every classroom and program, and nearly every office space. Large windows should be utilized where appropriate to take full advantage of this internal/external organization, but carefully balanced with the available budget and sun-control measures.

EXTERIOR MATERIALS

The exterior material palette for DXATC's New Permanent Campus Building will be selected based on their ability to harmonize with the red and black rock landscapes and desert climate surrounding the site and throughout the region. In addition to natural characteristics, appropriate materials, through texture, color, and/or application should echo the community's heritage as well. Glass, concrete and natural-colored metal have been deemed to be appropriate accent materials where needed.

There is a desire for the building to have a sense of internal illumination, and also be expressive of the lively activity taking place inside both day and night and year round. Thus appropriately placed high-performance, clear glazing should be featured to the extent possible - though not to exceed 40% per the State's Performance Building Standards.

It is imperative that all materials be durable, maintenance friendly, and well-suited for the extreme desert conditions that occur throughout many months of the year. Materials should be selected to meet the criteria of a 50-year building. Appropriate thermal expansion joints will need to be carefully considered in subsequent design phases.

INTERIOR MATERIALS

The design of interior spaces should promote a comfortable learning environment that is bright, inviting, and conducive to good health. Selection of interior finishes and materials should be program-specific where necessary to withstand unique use patterns and activities, as well as unique environmental conditions as outlined in subsequent sections of this document. In that, durable and maintenance friendly materials are imperative, and should be selected to meet the criteria of a 50-year building. Frequency of use and quantity of people should influence such decisions. Consideration must be given to texture, color, acoustics, sustainability, and light reflectance.

OVERALL FUNCTIONAL RELATIONSHIPS

In the East Wing, it is imperative that the building design feature a straight-forward approach to entry and building navigation. Upon entry to the building, key spaces/ programs should be immediately visible and accessible, including: Student Services, Bookstore, Student Lounge, Cafeteria, Grand Staircase, Student Copy & Writing Center, and Administration. During Programming, it was determined that a Feature Program should be located on Level 1 and be immediately visible to visitors, students, faculty and administrators approaching the main entry. The Drafting and Design Program was



<< Building Requirements Architectural Narrative / Vision

determined to be the best fit due to the full day / night activity of the program, as well as the visually interesting work that takes place within the classroom and pin-up space/lecture areas. Culinary Arts should also be prominently featured on the main level, near the Cafeteria/Kitchen with convenient access to truck delivery areas. CATAPULT and Graphic Arts programs should also be located so as to be immediately visible from the main entry, but may be located on level 2 adjacent to a double-height atrium (as illustrated in the Test-Fit floor plans). The entry/pathway to the Auditorium should be equally featured from the main entrance. In addition, elevators, restrooms, and pathways to upper levels of the building should immediately visible from the main entry.

The service counter and waiting area associated with Student Services should be featured near the main entrance. Security should be located with convenient access from the main entry, but does not need to be equally featured.

While the Administration reception area should be easily accessible from the main entry, and have a direct visual connection for customer service and safety, it is imperative to have adequate buffer space from the main activities (specifically noises and distractions) of the building. For this reason, Administration has been shown on level 2 in the Test-Fit floor plans. The Board Room associated with Administration should be equally visible and accessible, while providing ample overflow and waiting spaces directly adjacent to the room itself.

As the Medical Assisting/Pharmacy Technology/Dental Assisting is a featured program cluster with considerable size, it was determined that level 3 provides a great opportunity to put these programs and their related activities on display at the campus/community scale. These individual programs should be located adjacent to each other to take advantage of shared resources and amenities, and to magnify the professional character required for the Health Sciences.

A campus-wide Testing Center is included in the program, and should be located on the upper levels of the building. While convenient access is desired, immediate visibility isn't required. The testing center should be located near the Medical Assisting Programs due to the high-frequency of use and shared spaces.

The multipurpose rooms associated with Jobs Now/STIT/Custom Fit are to be located with immediate adjacency to the roof-top terrace for maximum flexibility of short-term programs and hosted events. These program components, along with catering prep space make up an event center that is a featured element of the New Permanent Campus Building.

All other Professional Trades programs can afford greater flexibility in their location within the building. Exact locations for these remaining programs will need to be carefully considered and solidified during subsequent design phases.

The Industrial Trades Wing program layout is based on maximizing connectivity to the existing runway. Diesel Technology, Welding, Automotive and Autobody, and OpX should each have direct connection to the runway to the extent possible. The Apprentice programs have a greater degree of flexibility in its location, but should be able to accommodate deliveries of oversized items likely to come from the runway side of the building. Storage spaces associated with each program should be located in the center of the building to maximize accessibility, while avoiding any limitations on runway access as well as daylight/views. A central stairway and building core of restrooms and lockers should provide an entry area and direct connection to the upper level. All classrooms and a shared office suite for each program should be located on the upper level. There is an opportunity to provide visual connectivity from the level 2 classrooms into the high-bay shops.

For functional relationships related to each program cluster, see Section 06 for detailed adjacency diagrams.

INTERNAL CIRCULATION

In the Professional Trades Wing, circulation is based on a highly efficient double-loaded central concourse running generally east to west with program clusters and building support spaces located on both the north and south sides. As illustrated in the Test-Fit floor

Building Requirements >> Architectural Narrative / Vision

plan, DXATC prefers the main south entry and the north entry both to directly connect to this central concourse via an atrium space. All stairways and program-specific sub-corridors should be directly connected to this central circulation element. At the west end of the central concourse, direct connection to the Industrial Trades Wing must be provided. On level 2, a Sky Bridge will help to fully leverage the unique opportunity to integrate and cross-pollinate programs/students/faculty/administrators in both the Professional Trades Wing and the Industrial Trades Wing via shared resources and amenities (i.e. Auditorium, Bookstore, Café, Study Lounges, Testing Center, Rooftop Terrace, and convenient access to Student Services and Administration). Additionally, at each level, a featured program should be located at the both ends of the concourse to fully activate the entire building. The Test-Fit floor plans illustrate the preferred relationships as follows: Level 1; Drafting and Design located at the east end, Café/Kitchen/Culinary Arts located at the west end. Level 2; Administration located at the east end, Auditorium (and Sky Bridge) located at the west end. Level 3; Medical Assisting and related program clusters located at the east end, and the multipurpose rooms associated with Jobs Now/STIT/Custom Fit and the Rooftop Terrace located at the west end.

SUSTAINABLE DESIGN

DXATC and the State of Utah are committed to building an energy-efficient/water-efficient, durable, maintenance-friendly and comfortable building and site. This project is required to comply with the State of Utah's High Performance Building Standards (HPBS) - to be updated by DFCM subsequent to publication of this document. The High Performance Building Standards intend to limit a building's ecological and economic impact, and targets strategies for reducing energy and water consumption, as well as reducing consumption and waste of resources during and after construction. Additionally, the State requires buildings to be built to a minimum 50-year life-cycle. The selection of design and construction practices are based on modeling of building systems to analyze life-cycle costs, including: Initial costs (Purchase – Acquisition), Construction Costs, Fuel and Energy Costs, Operation, Maintenance and Re-pair costs, Replacement Costs, Residual Values (Resale, Salvage or Disposal), and Finance Charges (loan interest payments where applicable).

DXATC's proposed New Permanent Campus Building is no exception to the State's requirements. In this respect, sustainability was directly addressed at a workshop during the course of Programming and Campus Master Planning- facilitated by the Programming Team, including LEED Accredited Professionals at Method Studio and the consulting engineers, as well as DFCM's Energy Program Director. The workshop participants discussed the opportunities and challenges of a high performance building with respect to the mission and goals of the DXATC, their academic programs, and unique site/climate. Ultimately, the workshop participants were resolute that the proposed DXATC New Permanent Campus Building should be a model facility for human health and comfort, energy and water efficiency, and construction that incorporates durable, low-maintenance regional and recycled materials – to the extent that the budget can support these goals.

The State's High-Performance Building Standards mandates that the following items and related strategies be directly addressed in subsequent phases of design, including, but not limited to:

Owner's Project Requirements (OPR)

Context-Sensitive, Site-Specific Design (open space, landscape water consumption, storm water/run-off, heat island effect, light pollution, etc)

Transportation (to/from and around the site)

Occupancy (programs, behaviors, business hours, after-hours, and cleaning schedules)

Indoor Environmental Quality (views, daylighting, fresh air, ventilation, lighting levels, controls, acoustics, etc)

Materials and Resources (Recyclability, Recycled content, renewable resources, low VOC content, embodied energy, etc)

Energy and Water efficiency

Building Envelope Design Requirements

Building Envelope Commissioning

Building Systems Design Requirements (HVAC, electrical, controls, life safety, security, etc)

Building Automation System
 Renewable Energy Systems
 Building Systems Commissioning
 Coordination with Energy Engineer(s)
 Post-Occupancy and Warranty walk-throughs
 Operations and Maintenance
 Education and Outreach Programs (training, brochures, etc)

To ensure successful implementation of the HPBS during the design and construction phases, the entire Project Team (including consulting engineers from each discipline – mechanical, electrical, plumbing, civil, etc, and DFCM, DXATC Executive Staff and Facilities personnel (to be hired at a later date), and contractors and commissioning agents) will need to be proactive in an inclusive, open, collaborative and integrated design effort. Related workshops must be included in the design schedule to develop a comprehensive strategy for sustainability related to the specific needs of this unique project.

BUILDING ENVELOPE

The building envelope is a significant component of the comprehensive building system, and will contribute to the building's overall energy efficiency. More importantly, in order to create and maintain a suitable environment for the classrooms, labs, shops, offices, Auditorium, multipurpose rooms, and common spaces, the design and construction of wall/roof/floor assemblies will be vital. Keeping the environmental control layers consistent and continuous between the wall/roof/floor assemblies will be equally critical. Careful attention to detail will be required, and, assuming the layers of control described below are included, will be the keys to success for the building envelope.

The building envelope is an environmental separator. It protects the inside space from the outside environment (water -rain/snow, heat, air, and water vapor). The building envelope, or wall/roof/floor assembly, is composed of five to six critical layers:

1. finish/cladding (for walls)
2. Thermal control layer (insulation),
3. Water control layer,
4. Air control layer,
5. Vapor control layer, and
6. Structure.

The first five layers should be located on the outside of the structure (to protect steel, and wood from the negative effects from the outside environment, such as rust, decay, etc). With an airtight enclosure, the interior environment will be much easier to control: heat/cool, move, filter, humidify (or dehumidify). While cladding is described in the preceding narrative, some additional detail for the insulation and air/vapor layers is provided below.

Thermal Control Layer (Insulation): Extruded polystyrene (XPS) is recommended due to its cost to performance ratio. This material provides a moderate 5R-value per inch, and can function as an additional vapor control layer if detailed correctly. It has a relatively high compressive strength, and can be used below grade at slab/foundations, as well as above grade. Spray-applied closed-cell high-density foam insulation is a relatively expensive alternative, but does offer very high performance. It has a lower compressive strength than XPS. An alternative for above-grade walls is mineral wool. It has a moderate R-value per inch, and a very high melting point - for applications at metal panels/rain screens. Also, it is UV stable. While polyisocyanurate has a relatively high R-value per inch, it can absorb water which will reduce its performance. Additionally, it has a lower compressive strength. Use of this material should be considered only if these concerns are adequately addressed.

Note that it is not recommended to use a batt-insulation in exterior metal stud wall cavities, as the thermal conductivity of the metal studs significantly reduces the overall performance of the wall. Where batt insulation is necessary, mineral wool batt insulation is a preferred alternative to glass-fiber batts. In addition to having a slightly higher R-value per inch than glass-fiber, it provides fire-

Building Requirements >> Architectural Narrative / Vision

resistance, is water-repellant, resists mold growth, is chemically inert, and, overall, is very environmentally-friendly. While it does cost more than traditional glass-fiber batts, the benefits are generally worth it.

Water, Air and Vapor Layers: The water, air and vapor layers play a vital role in protecting the interior environment from the exterior environment. It is well documented that water damage is the largest source of construction defect claims. Establishing and protecting the budget for the building envelope assemblies will be critical as the project moves through design and construction phases. The intent of this section is to make certain that the Design Team adequately studies, analyses and implements a design that eliminates, or significantly reduces, air and water flow through the building envelope. Refer to the State's HPBS for exact requirements.

Air barriers, by definition, are layers, or membranes, that permit below 10 perms*. Vapor barriers permit a maximum of .1 perms*. Thus, all vapor barriers are air barriers (but all air barriers are not vapor barriers). Many types of barriers are available: fluid-applied, self-adhered sheets, mechanically fastened sheets, rigid boards/panels, and polyurethane spray foams. The Design Team will be required to determine the most appropriate barrier for the actual building envelope developed in subsequent phases.

The Design Team will need to ensure that the combination of barrier materials and systems do not negate one another, and, similarly, do not contribute to the degradation of one another. This applies to the relationship between the barriers and the substrates as well. The Design Team will need to be aware of materials that are susceptible to UV deterioration, and should plan/detail accordingly.

Equally important is the management of water within the building envelope. Any water in the envelope will need to be properly drained and vented. A continuous system of drainage cavities, weep holes, and vent space will likely be required. As energy usage is directly related to air infiltration/exfiltration, an air barrier test will be required during construction to test the air leakage of critical wall assemblies. Note that, if batt insulation is required at certain wall/roof assemblies, the air/vapor barrier must go on the outside of the insulation. Do not place an air/vapor barrier on the warm side of the insulation. In certain conditions, this will trap moisture, reducing the performance of the wall, and creating conditions for mold growth.

*Perms = permeability, defined as a measure of the rate of transfer of water vapor through a material

While the architect typically takes the lead role in development of the building envelope, the entire Design Team is responsible for its success.

Determining the overall R-value of the wall/roof/floor assemblies for the energy model, determining air pressure loads, determining the dew point, coordinating penetrations for wall finishes, mechanical and electrical devices, determining the impact of structural movement and thinking through a complex construction sequence will be just some of the tasks required by the entire team to ensure holistic building envelope solution. It is recommended that the Design Team have a specific building envelope workshop. For review and coordination early in the design process, the Design Team should provide clear and comprehensive insulation and water/air/vapor layer section and plan diagrams, coordinated with the specifications, to ensure that the Design Team/contractor and owner are aware of the systems to be included in the construction of the facility, especially where transitions occur.

It is recommended that the owner retain a Building Envelope/Enclosure Commissioning Agent (BECA) for the Project to provide building enclosure coordination and to oversee, through design and construction, the commissioning of all building enclosure components.

ENERGY MASTER PLAN OVERLAY

St. George's unique climate - with consistent and plentiful sunny days throughout the year and minimal days with snow cover - affords opportunities to maximize solar energy utilization. In response, DFCM has engaged a third-party consultant (BacGen Energy Engineering) to provide an energy master plan over-layer to be used in conjunction with this Program document. This analysis was not complete at the time of publication of this document, but, in general, it is understood that an in-depth investigation of opportunities to maximize utilization of solar energy through roof-mounted photo-voltaic (PV) panels and shade-structures with PVs covering

<< Building Requirements Architectural Narrative / Vision

parking areas will be featured. While these elements will certainly come at a cost-premium (not included in the Project Estimate), consultation includes funding/financing-opportunities to reduce the initial capital investment. It should be noted that, while the suggested building orientation was developed with smart solar-strategies in mind, the concept was not developed with the intent to maximize solar energy generation. During programming, it was determined that other priorities took precedence, resulting in the site strategy illustrations included in this document. During subsequent design phases, these priorities will need to be reevaluated, and the siting/building orientation strategy may need to be adjusted accordingly.

BUILDING CODE SUMMARY

For the new Dixie Applied Technology College building the materials, design, and construction will conform to the standards established by the Utah State Division of Facilities Construction and Management (DFCM). Furthermore, it will conform to all building, accessibility codes and requirements, and the energy codes adopted by the State of Utah at the time of design and construction, whether or not they are specifically referenced in this document.

It is the Design Team and the Architect of Record's responsibility to verify and use all the latest revisions, editions, and use all the latest revisions, editions, and adopted version code documents. If there are conflicting standards, code provisions, and/or regulations, the most stringent will govern unless such requirements are waived in writing by the Utah State Division of Facilities Construction and Management.

Partial list of applicable codes and standards:

International Building Code (IBC) w/ Utah Amendments:	2012
International Fire Code (IFC):	2012
State of Utah High Performance Building Standards	2014
Americans w/ Disabilities Act Title III, 1991/1998 (ADA)	
Occupational Safety and Health Administration (OSHA)	
American National Standards: ICC/ANSI A117.1-2003	

OCCUPANCY CLASSIFICATION

The occupancy presented in this package is for preliminary programming and planning purposes. The occupancy determination must be confirmed by the Architect of Record with the State Building Official and the State Fire Marshall at the time of design.

ADA ACCESSIBILITY

The new DXATC building is required to be in compliance with the American with Disabilities Act, Title III, 1991/1998 (ADA). The Utah State Building Board has adopted the following additional requirements:

- >> All public entries to the building will be ADA compliant with automatic door operators including required vestibule doors.
- >> One set of accessible restroom doors shall be equipped with automatic door operators including vestibule doors if applicable.
- >> ADA compliant parking shall be provided.

Building Requirements >> IBC 2012 International Building Code Review

TYPE OF CONSTRUCTION

(IBC Chapter 6) : **Type IIB (SPRINKLERED)**

OCCUPANCY

(IBC Chapter 3)

Educational (classroom)	B (Section 303/304)
Offices	B (Section 304)
Shops	F-2 (Section 306)
Auditorium	A-3 (Section 303)
Kitchen / Cafe	A-2 (Section 303)

Occupancy Separation Required: YES
(Table 508.4) A-3 to B = 1 HR Required

(Table 508.4) MIXED-USE SEPARATED

FIRE SPRINKLERS

Yes

FRONTAGE

(IBC Section 506.2) Assume .75

STORIES ALLOWABLE

(IBC 503)
 B = 4 Stories (allowable) - 75' H
 A2 = 3 Stories (allowable) - 75' H
 A3 = 3 Stories (allowable) - 75' H
 F-2 = 4 Stories (allowable) - 75' H

ALLOWABLE BUILDING AREA

Occupancy	B	A-2	A-3	F-2
Program Area sf	110,000 SF		9,000	
Basic Allowable Area	23,000		9,500	
Table (503) per floor				
Frontage increase (506.2)	.75		.75	
Multi story increase (506.4.1)	x3		x3	
Sprinkler increase (506.3)	200%		200%	
Actual/Allowable SF (506.4.1)	241,500		99,750	

FIRE-RESISTIVE REQUIREMENTS based on Type IIB Construction

Structural Frame (incl columns,girders, trusses)	0 HR
Bearing Walls	0 HR
Interior Walls	0 HR
Non-Bearing Walls	0 HR
Floor Construction - including support beams and joists	0 HR
Roof Construction - including support beams and joints	0 HR



EMERGENCY EGRESS

(IBC Chapter 10)

Number of Occupants: 3,100 (2,410 Excluding Auditorium)

STAIR WIDTH (.2 in. per occupant): Level 1 213 inches required (combined)

STAIR WIDTH: Level 2 237 inches required (combined)

STAIR WIDTH: Level 3 170 inches required (combined)

DOOR WIDTH (.15 in. per occupant): 465 inches required (combined)

PLUMBING FIXTURES

(IBC Chapter 29) :

Number of Occupants: 3,100 (2,410 Excluding Auditorium)

Men: 1,550 (1,205 Excluding Auditorium)

Women: 1,550 (1,205 Excluding Auditorium)

Water Closets Required:

Men: 16 + 15 Urinals (13 + 12 Excluding Aud.)

Women: 31 (25 Excluding Auditorium)

Lavs Required:

Men: 20 (16 Excluding Auditorium)

Women: 20 (16 Excluding Auditorium)

Drinking Fountains Required 26 (Approximate 9 per level)

Service Sinks Required 1 per level

STRUCTURAL SYSTEM << Building Requirements

Building Systems Design Criteria

The structural design for this project should provide a building system which will integrate with the program requirements for space layout, as well as with the architectural and building service needs, while meeting current code standards for vertical and horizontal load carrying capacity. User needs in terms of current flexibility of the spaces and future adaptability of use should be considered. The level of user comfort as determined by the acoustic and vibration sensitivity of the structure also should be addressed.

The facility has a wide variety of program spaces that must be accommodated. Areas requiring the use of microscopes should be evaluated for enhanced floor vibration characteristics, or located on grade. Areas such as Culinary Arts spaces can be expected to have significant rooftop and suspended equipment weights that need to be considered such as grease hoods and exhaust fans.

STRUCTURAL / SERVICE COORDINATION

Layout of the structural grid will need to respect the classroom, office, and public area spaces established for the various building functions. During the design phase, a completely integrated approach to building systems is recommended. Distribution of HVAC, plumbing and electrical services must be carefully coordinated with the structural elements, particularly at framing intersections and major crossover points. This close coordination must be achieved in order to avoid conflicts and limit penetrations of major structural members.

CODES AND STANDARDS

Codes and standards that apply to the design of this building are:

- > 2012 International Building Code
- > DFCM Design Criteria for Architects and Engineers, May 25, 2005
- > American Institute of Steel Construction (AISC) with Commentary
- > ACI 318 Building Code Requirements for Reinforced Concrete
- > ACI 530 Building Code Requirements for Masonry Structures
- > American Iron and Steel Institute (AISI) Specifications for the design of Cold-Formed Steel Structural Members
- > American Welding Society (ANSI/AWS) D1.1 Structural Welding Code
- > Steel Joist Institute (SJI) for open web Joists and Girders
- > Steel Deck Institute (SDI) for Metal floor and roof Decks

GEOTECHNICAL CRITERIA

A site specific geotechnical investigation has not been completed at this time. . The general information that is known regarding the soil conditions around the existing airport terminal building indicates a combination of lean clays and basalt fragments with basalt rock encountered at a depth of 10-15' below grade. It is anticipated that standard spread footings on compacted fill can support the loads associated with the proposed construction.

Once the final building size, configuration, structural system, number of levels above and below grade, and column loads have been determined, the project geotechnical consultant shall review the following items to verify the assumptions in the geotechnical report conform with the final proposed design of the facility:

- > Soil bearing capacity
- > Structural fill requirements
- > Potential differential settlements
- > Potential for expansion or collapse of soils due to moisture changes
- > Liquefaction potential
- > Groundwater restrictions
- > Seismic considerations, coefficients, fault traces, etc.

- > Lateral bearing pressures – active and passive
- > Alternate foundation systems
- > Pavement sections

DESIGN CRITERIA

The structural systems in the facility shall be designed to meet the requirements of the 2012 International Building Code (IBC) and the Design Criteria Manual adopted by the Utah State Building Board. The following minimum requirements should be anticipated:

STRUCTURAL OCCUPANCY CATEGORY Category III (Buildings and other structures, the failure of which could pose a substantial risk to human life)

WIND LOADS

Wind Velocity: 120 mph, (3 second Gust)
 Exposure Type: "C", for the building structure, as appropriate to the site. Topographic effects will need to be carefully evaluated for this particular site.

Wind Importance Factor, I_w 1.00

SEISMIC LOADS

Short Period Mapped Acceleration $S_s = 0.49$ g
 Long Period Mapped Acceleration $S_1 = 0.15$ g
 Site Class D (Assumed, to be confirmed by geotechnical investigation)

Seismic Design Category C
 Seismic Importance Factor, I_e 1.25

ROOF LOADS

Ground snow, p_g 21 psf
 Calculate roof snow load as specified in the Utah Uniform Building Standard Act Rules R156-56 issued January 1, 2002. Design for snowdrift where appropriate. Roof live loads shall not be less than that specified in IBC 1607.11.

Snow Importance Factor, I_s 1.10

FLOOR LIVE LOADS

Floor design live loads shall be in accordance with the latest edition of the DFCM Design Criteria Manual and the 2012 International Building Code and as follows:

1. 80 psf, unreduced, except for column and footing designs
2. 15 psf movable partition load
3. Areas of concentrated standard file storage - 125 psf
4. Floor areas supporting high density rolling files – 225 psf, or actual load
5. Paper storage areas – 250 to 350 psf as appropriate
6. UPS Battery Storage areas – 250 to 450 psf as appropriate
7. Mechanical Equipment Rooms – 125 psf minimum or as required by actual equipment
8. Laundry facilities – 125 psf or as required by actual equipment

FLOOR LIVE LOADS CONT.

Areas where heavy load concentrations exceed the normal loading requirements shall be designed for the specific load case. The project is anticipated to include “green” roof areas. The dead loads associated with green roof systems can vary dramatically and it is critical to establish the type of green roof system to be incorporated and determine the associated loading requirements.

*Note: The more stringent requirement between the 2012 IBC, the DFCM Design Criteria Manual, and the loads given above shall govern.

FLOOR VIBRATION CRITERIA

Control of suspended floor and roof structure vibrations due to human and mechanically induced excitation forces shall be considered in the selection of the building structural floor and roof framing systems.

It is not anticipated that any activities or equipment that are sensitive to floor vibrations will be located within this facility. This should be verified as part of the final design. Areas where microscopes will be in frequent use should be considered for a higher vibration performance or these spaces should be located on grade. Consideration could also be given to providing isolation tables for microscopes. Should vibration sensitive activities or equipment become necessary within the facility then structural system compatibility should be carefully evaluated.

ANTICIPATED CONSTRUCTION

It is anticipated that the building will be supported on conventional reinforced concrete spread footings on compacted fill.

The second and third floor areas will likely consist of concrete on metal deck slabs supported by steel wide flange floor framing and steel columns. The floor framing will incorporate welded studs to make the floor slab composite with the beams. The roof framing above second floor spaces will consist of open web steel joist and wide flange beams supporting steel roof deck. The auditorium space will require long span column free space. This long span structure is currently anticipated to be a green roof space. Long span open web joists or custom steel trusses are the most likely structural system for this portion of the building.

The lateral force resisting system will need to conform to the architectural configuration of the building and is likely to include reinforced concrete or CMU shear walls, braced frames, or steel moment resisting frames. A combination of these systems may be necessary to accommodate the architectural expression of the facility. It is our understanding that the user is opposed to visual expressions of structure in general. This will likely limit the use of braced frame systems. Reinforced concrete shear walls incorporating architectural finishes such as board formed concrete could be utilized as part of the lateral force resisting system.

FUTURE BUILDING EXPANSION

The A/E designers of the building shall not consider potential future horizontal and/or vertical expansions because

- > Future vertical expansion is not anticipated.
- > Future horizontal expansion of the structure is not anticipated.

The Master Plan currently anticipates that this building will be connected to a future building via an enclosed bridge structure at the second level. Anticipated loads and support locations for the future bridge should be accounted for in the structural design of the building, or the layout of the bridge should be planned to allow for independent support structure that is separate from the building.

TESTING AND INSPECTIONS

The Architect/Engineer, and the selected testing lab, shall perform periodic construction observations, testing, and special inspections, as outlined in the DFCM Design Criteria for Architects and Engineers. The design engineer shall list all required special inspections on the contract drawings, and perform periodic construction observations as required by the A/E agreement. Costs for special inspections and testing services will be paid for directly by the owner.

MECHANICAL, PLUMBING, FIRE PROTECTION << Building Requirements

Building Systems Design Criteria

CODES AND STANDARDS

- > International Building Code, 2012
- > International Mechanical Code, 2012
- > International Plumbing Code, 2012
- > International Fire Code, 2012
- > International Energy Conservation Code, 2009
- > International Fuel Gas Code, 2012
- > NFPA 13
- > Utah State Boiler Code
- > National Electrical Code, 2012
- > DFCM Design Criteria
- > DFCM High Performance Building Rating System
 - ASHRAE std. 55-2010: Thermal Environmental Conditions for Human Occupancy
 - ASHRAE std. 62-2010: Ventilation for Acceptable Indoor Air Quality
 - ASHRAE Std. 90.1-2010: Energy Standard for Buildings

HIGH PERFORMANCE BUILDING REQUIREMENTS

This facility will conform to DFCM High Performance Building Standard and DFCM Design Requirements.

Basic Requirements:

The Owner shall directly hire the Energy Engineer, Building Envelope Commissioning Agent and Commissioning Agent. The Energy Engineer shall provide the energy engineering over the course of the entire project as part of the design team. Energy modeling and LCCA will be reviewed by DFCM's third party reviewer. The Owner, Energy Engineer, Commissioning Agent and Building Envelope Commissioning Agent shall provide timely input to the design team related to the OPR, BOD and related HPBS documentation.

CFC Reduction in HVAC and Refrigeration Equipment. Designer shall select HVAC and refrigeration equipment without chlorofluorocarbons (CFC) based refrigerants.

Ventilation Systems. Designer shall provide mechanical ventilation system according to ASHRAE standard 62. Mechanical ventilation system shall have the capability to operate continuously during occupancy and designed not to be easily shut-down or otherwise defeated, such as blocked registers.

Drainage Systems. Designer shall design surface grades, storm drainage system, HVAC system, and other systems to avoid accumulation of standing water around in the building.

Mold Prevention during Construction. Contractor shall ensure porous type building materials, insulation, and fabric, is kept dry to prevent the growth of mold and bacteria. Materials that have been affected by mold shall be abated or replaced. Building insulation that is damp or wet for 72 hours shall be replaced.

Provide 2-stage filtration, MERV 8 and MERV 13. Filters shall be installed during construction. Change filters immediately prior to beneficial occupancy and provide one set of filters for attic stock. Provide list of filters sorted by each piece of equipment.

Thermal Comfort. Designer shall ensure that thermal comfort requirements are according to ASHRAE Standard 55-2010. Exceptions:

- Winter humidification is not required; summer dehumidification is not required; and Upper temperature limit in natural ventilated buildings is not required.

Basic Requirements cont.

Energy Performance. Facility shall reduce source energy consumption by at least 10% as compared to ASHRAE 90.1-2010 baseline modeled in conformance with Appendix G.

MECHANICAL UTILITIES

Sanitary Sewer: The sanitary sewer shall extend to existing utilities. Below grade sewer piping is to be PVC. Cast Iron sewer piping installed below grade deteriorates rapidly in the St. George area.

Storm Drainage: The building and site drainage will be retained on site or connected into the public storm drainage system. Below grade storm drainage piping is to be PVC. Cast Iron sewer piping installed below grade deteriorates rapidly in the St. George area.

Water: The culinary water supply and fire sprinkling system will be connected in the street and extended to the building mechanical room. Below grade water piping is to be wrapped copper, Aquatherm, PVC, or CPVC piping. Bare metal piping deteriorates rapidly in the St. George area.

Gas Heating: Building heating and domestic water heating will be accomplished using natural gas.

DESIGN CONDITIONS

Elevation: 2900 ft.

	Winter	Summer
Outdoor Temperature	15°F	102°F DB/71°F WB
Indoor Temperature - Typ.	72°F (+/-)4°F	75°F (+/-)4°F
Mechanical Rooms	60°F	85°F
Phone/Data/Comm/Server	72°F	75°F
Unoccupied Spaces		95°F

ACOUSTICAL CRITERIA

HVAC related background sound in rooms will comply with the 2007 ASHRAE HVAC Applications Handbook Table 4.2.

Offices	RC(N) 25 to 35
Conference Rooms	RC(N) 25 to 35
Open Plan Offices	RC(N) 40
Corridors and Lobbies	RC(N) 40 to 45
Classrooms	RC(N) 25 to 30
Medical/Nursing Teaching Areas	RC(N) 25 to 30
Larger Lecture Rooms	RC(N) 25 to 30
Laboratories	RC(N) 35 to 45
Cafeteria/kitchen	RC(N) 45
Automotive Technology/Welding Lab	RC(N) 50

HEATING SOURCE

Building 1 Professional Trades – East Wing

The heat source will use a ground loop heat exchanger (GLHE) with multiple subfields in a vertical borehole design with 1-inch HDPE piping grouted in 4.5-inch boreholes. Each subfield supply and return main will be installed into a mechanical room inside the building and manifolded into one supply and return pipe for the building's system. Water to water heat pumps (WWHPs) will be used to generate 113°F heating water that will feed heating coils in variable volume air handlers. The winter discharge air temperature

shall be 55°F. A natural gas fired, condensing water boiler will be used to supplement the GLHE insuring the water supply to the building is maintained at a minimum of 50°F and a maximum of less than the deep earth temperature measured during the Thermal Conductivity Test. The boiler will also be designed to provide a 180°F water loop to VAV boxes with hot water reheat coils. The winter discharge air temperature off the VAV reheat boxes is to be 100°F. A storage tank is to be included in the design between the water to water heat pumps and the building loop insuring the water to water heat pumps compressors do not short cycle. Domestic hot water will be provided via a high efficiency domestic gas fired water heater.

Building 1 Industrial Trades – West Wing

The heat source will use a GLHE with multiple subfields in a vertical borehole design with 1-inch HDPE piping grouted in 4.5-inch boreholes. Each subfield supply and return main will be installed into a mechanical room inside the building and manifolded into one supply and return pipe for the building's system. WWHPs will be used to generate 113°F heating water that will feed heating coils in variable volume air handlers. The winter discharge air temperature shall be 55°F. A natural gas fired, condensing water boiler will be used to supplement the GLHE insuring the water supply to the building is maintained at a minimum of 50°F and a maximum of less than the deep earth temperature measured during the Thermal Conductivity Test. The boiler will also be designed to provide a 180°F water loop to VAV boxes with hot water reheat coils. The winter discharge air temperature off the VAV reheat boxes is to be 100°F. A storage tank is to be included in the design between the water to water heat pumps and the building loop insuring the water to water heat pumps compressors do not short cycle. Domestic hot water will be provided via a high efficiency domestic gas fired water heater.

High outside air – Technology Labs, Welding Labs, Etc.: Preferred system is roof top mounted make up air units with indirect natural gas burner.

COOLING SOURCE

Building 1 Professional Trades – East Wing

The heat sink will be the same GLHE as described as the heating source. The GLHE shall be sized for the building's heating load and a cooling tower with plate and frame heating exchanger will be designed to make up the difference between the heating and cooling loads. Water to water heat pumps will be used to generate 46°F chilled water that will feed cooling coils in variable volume air handlers. The summer discharge air temperature shall be 55°F. A cooling tower and plate and frame heat exchanger will be used to supplement the GLHE insuring the water supply to the building is maintained at a minimum of 90°F. The summer discharge air temperature off the VAV reheat boxes is to be 55°F. A storage tank is to be included in the design between the WWHPs and the building loop insuring the water to water heat pumps compressors do not short cycle. Domestic hot water will be provided via a high efficiency domestic gas fired water heater.

Building 1 Industrial Trades – West Wing

The heat sink will be the same GLHE as described as the heating source. The GLHE shall be sized for the building's heating load and a cooling tower with plate and frame heating exchanger will be designed to make up the difference between the heating and cooling loads. Water to water heat pumps will be used to generate 46°F chilled water that will feed cooling coils in variable volume air handlers. The summer discharge air temperature shall be 55°F. A cooling tower and plate and frame heat exchanger will be used to supplement the GLHE insuring the water supply to the building is maintained at a minimum of 90°F. The summer discharge air temperature off the VAV reheat boxes is to be 55°F. A storage tank is to be included in the design between the WWHPs and the building loop insuring the water to water heat pumps compressors do not short cycle. Domestic hot water will be provided via a high efficiency domestic gas fired water heater.

High outside air – Technology Labs, Welding Labs, Etc.: Preferred system is roof top mounted make up air units with evaporative cooling section.

THERMAL CONDUCTIVITY TEST

Jeremy Bowman Owner of Earth First Drilling, Utah License #744, completed the installation of two boreholes. Test hole #1 is located south of Building 1 Professional Trades – East Wing. Test hole #2 was installed south of Building 1 Industrial Trades – West Wing.

Drilling

Test hole #1 was completed to 218 feet. Circulation was lost at 176 feet. All cuttings were lost to the sandstone formation and began to flow back into the bore between pipe connections. The fracturing created problematic grouting. Test Hole #2 encountered only slight fracturing and was completed to the targeted 300 foot depth. Both wells displaces more than the calculated grout volume.

The drilling of Test Hole #1 was tough to drill past 200 feet. Circulation was difficult to maintain and cuttings and drilling fluid was lost. Drilling past 200 feet in some areas of the site may be difficult but not impossible according to the driller. He felt that the majority of boreholes drilled to 300 feet could be easily installed as Test Hole #2 was. This issue can be solved by either drilling all boreholes at 200 feet or piping a 200 foot hole and a 100 foot hole drilled nearby in series. The drilling and construction of test holes #1 and #2 are consistent with what we've seen on 32 past projects in the area and should not pose a significant issue.

Test Hole #1 Drill Log

Depth (ft)	Formation
0-15	sand gravel and clay
15-45	hard rock volcanic formation
45-170	dry red shale
170-220	fractured red sandstone

14 units geopro lite powertec 1.07 grout
Completion Date: 6-23-2014

Test Hole #2 Drill Log

Depth (ft)	Formation
0-16	sand gravel and clay
16-35	hard rock volcanic formation
35-165	dry red shale
165-300	fractured red sandstone

15 units geopro lite powertec 1.07 grout
Completion Date: 6-24-2014

Thermal Conductivity Test

A thermal conductivity test was performed on Test Hole #2 by VBFA on July 7-9th, 2014. The entire report and results is provided in this document. VBFA has performed 30 thermal conductivity tests and have been involved in the design and construction of 32 buildings in the St. George area. The results for the TC Test at the DXATC site is consistent with the data we have and the GLHE will be a viable option.

VENTILATION

Ventilation will be provided in compliance with the ASHRAE Std 62-2010.

Classrooms:	10 CFM/person + 0.12 CFM/sq.ft.
Office Space:	5 CFM/person + 0.06 CFM/sq.ft.
Lecture Classroom:	7.5 CFM/person + 0.06 CFM/sq.ft.
Cafeteria:	7.5 CFM/person + 0.18 CFM/sq.ft.
Laundry:	30 CFM/person
Labs:	6-10 AC/hr
Automotive Tech Shop:	1.75 CFM/sq.ft. + 100 CFM/vehicle
Welding Shop:	10 AC/hr + 200 CFM/welding-bench

An outside air flow measuring device will be provided at each air handler. A CO2 sensor will reset the outside air flow between minimum and maximum value.

HVAC SYSTEM

Preferred system is central station variable air volume (VAV) reheat system(s) with air handling unit(s) located in mechanical fan rooms. Air handlers may be roof mounted if photovoltaic systems are not provided. VAV Boxes with hot water reheat coils will be provided for each zone. Provide 12" deep evaporative pre-cooler over economizer intake. The air handler will be equipped with fan-wall fans to reduce sound levels and provide redundancy.

Roof mounted make up air units with natural gas fired indirect heaters and evaporative cooling sections are the preferred system for technology labs, welding labs, etc. with the high outside air loads and constant opening and closing of overhead doors. Winter drain-down valves are to be provided for all evaporative coolers and discharged into the buildings' sewer system. Winter drain-down valves are to be easily accessible from within the building. A shutoff valve is also to be installed prior to the connection to the unit.

Building relief will be accomplished by using return/relief fans in the air handlers, relief air hoods with dampers in the technology labs controlled by building static pressure sensors.

Provide thermal zoning as indicated below and in conformance with DFCM Guidelines.

Thermal Zoning:	
Corner Rooms:	Individual Thermostat
Classrooms:	Individual Thermostat
Teaching Labs:	Individual Thermostat
Conference Rooms:	Individual Thermostat
Unique Offices:	Individual Thermostat.
Similar Offices:	Offices with similar exterior exposure may be grouped together.

EXHAUST AIR SYSTEMS

Toilet Rooms: Provide exhaust air system for toilet room ventilation. Exhaust fans to be rooftop mounted.

Custodial Rooms: Provide exhaust air system for custodial room ventilation. Exhaust fans to be rooftop mounted.

Automotive & Welding labs: Provide independent exhaust air system with outlets near the floor and ceiling. The use of exhaust snorkels to provide point exhaust will be considered.

Kitchen: Provide exhaust air systems for the kitchen hoods and dishwasher. Exhaust fans to be roof mounted with vertical discharge and with vented and hinged roof curbs for cleaning and with grease troughs.

Chemical Fume Hoods: Provide exhaust air systems for chemical fume hoods. Exhaust fans to be roof mounted with vertical discharge at or about 72" above the roof level.

AIR DISTRIBUTION

The duct system will be oversized from traditional velocities in order to reduce noise and fan energy. The ducts from the air handler to VAV boxes should be medium velocity (2500 feet per minute maximum, 0.20 water gage/100 feet maximum pressure drop.) The ceiling space will be a return air plenum.

GLHE PIPING SYSTEM

The primary loop between the GLHE and the WWHPs shall be a variable flow pumping system with a primary and standby pump each sized for 100% of the flow with variable frequency drives on each pump. The secondary loop between the WWHPs and the storage tanks shall be constant volume and there shall be one pump for each WWHP. Pumps between the storage tanks and the air handlers shall be a variable flow pumping systems with a primary and standby pump each sized for 100% of the flow with variable frequency drives on each pump.

HEATING HOT WATER PIPING SYSTEM

Constant flow primary loop, variable flow secondary loop. Primary and standby pumps each sized at 100% flow. Variable Frequency drives on each variable flow pump. Heating hot water is to be provided to all VAV reheat boxes.

REFRIGERATED CHILLED WATER PIPING SYSTEM

Constant flow primary loop, variable flow secondary loop. Primary and standby pumps each sized at 100% flow. Variable Frequency drives on each variable flow pump. Chilled water is provided to the air handler chilled water coils from the water to water heat pumps.

COOLING TOWER

Cooling tower is to be a stainless steel, counter flow or cross flow tower with a bottom condenser water sump with bottom outlet. The tower is to be mounted on concrete walls to prevent cavitation and dirt and debris from building up inside the tower. The sump shall be provided with a sump cleaning and filtration system. A plate and frame heat exchange is to be included in the design to make it easy to winterize the tower.

HEATING BOILER

90% minimum efficiency condensing water boiler to supplement the GLHE and provide heating water to the VAV reheat boxes.

HIGH PERFORMANCE AIR-CONDITIONING

The central air-handler will be equipped with economizer cooling which utilizes outdoor air to provide free cooling during cool outdoor temperatures. The use of evaporative cooling (Direct, Indirect/Direct) will be considered to extend the use of the economizer.

Heat recovery to be considered on exhaust systems serving automotive labs, welding labs, and locker/toilet room. Split system air conditioning units will be used to reduce cooling airflow in rooms with high plug loads (server rooms, electrical rooms) and allow for fan shutdown during unoccupied hours.

AUTOMATIC TEMPERATURE CONTROLS

Direct Digital Controls (DDC) with electric damper and valve actuators. Installers shall be Johnson Controls, Utah Yamas Controls, Atkinson Controls, Trane Controls or Honeywell Controls. Controller points are in accordance with the DFCM High Performance Building Standard.

FIRE SPRINKLING

Automatic wet-pipe sprinkler system. Piping will be standard weight black steel with mechanical couplings, threaded joints or welded joints. Provide Pre-Action System in Main Server Room.

PLUMBING

Provide high efficiency domestic hot water heater with domestic hot water storage tank. The domestic hot water system shall provide 140°F hot water to the building.

Water reduction will be utilized via dual flush water closets (quart/flush), water-less urinals, and sensor faucets. Provide ADA compliant fixtures as required by code.

Provide combination emergency eyewash and shower in shop areas that comply with ANSI Z358.1.

Provide compressed air to shop areas. The number and location of air compressors and outlets shall be determined by space location requirements and economics.

Provide floor mounted mop sinks in custodial closets as indicated.

Provide barrier free wall mounted refrigerated drinking fountains in several locations as indicated.

ENERGY AND ENVIRONMENTAL STRATEGIES

The HVAC and plumbing will utilize the following green building design methods

- NEMA Premium Efficient Motors
- Occupancy Sensors
- Economizer Cooling
- Variable Frequency Drives on all 3-Phase Motors with Varying Loads
- Oversized duct work and air handler cabinet to reduce fan energy
- Monitor and control CO2 levels in all densely occupied spaces

HIGH PERFORMANCE DESIGN

The State of Utah requires the building be designed and constructed so as to meet or exceed the requirements associated with the DFCM High Performance Building Standard. The HVAC and plumbing system must not only meet the varying demands of diverse occupancies it must beat ASHRAE 90.1-2010 minimum energy requirements by 10% and meet the DFCM High Performance Building Standard Silver requirements. The 2010 version represents a much higher performance standard than the previous 2007 version.

ALTERNATE MECHANICAL SYSTEMS FOR CONSIDERATION

These methods have not been considered in this report, but were discussed as alternative options.

- Variable Refrigerant Flow System
- VAV reheat system with water cooled chiller(s), cooling tower and high efficiency boiler(s).

A campus-wide central plant is not DFCM's preferred direction due to tunnel construction costs and timeline with future buildings would be placed in operation.

CODES, STANDARDS, AND REFERENCE MATERIALS

Codes and Standards which are directly applicable to design of the electrical systems are listed below:

- > ADA, Americans with Disabilities Act
- > ASHRAE 90.1 Energy Code
- > IECC, International Energy Conservation Code
- > DFCM, Division of Facilities Construction and Management, Design Requirements
- > DFCM, State Buildings Energy Standard
- > USU, Utah State University, Design Standards
- > EIA/TIA, Electronics Industries Association/Telecommunications Industry Association
- > IBC, International Building Code
- > IESNA, Illuminating Engineering Society of North America, appropriate Recommended Practices and 10th Edition of the IES Lighting Handbook
- > NFPA, National Fire Protection Association (applicable sections including but not limited to):
 - NFPA 70, National Electrical Code
 - NFPA 72, National Fire Alarm Code
- > "Standard Broadcast Wiring and Installation Practices", as excerpted from "Recommended Wiring Practices," Sound System Engineering, (2nd Edition), D. Davis The Basics of Audio and Visual Systems Design, Revised Edition, Ray Wadsworth / International Communications Industries Association, INC.
- > UL, Underwriter's Laboratories
- > Utah State Fire Marshal Laws, Rules and Regulations

SITE ELECTRICAL

Electrical service for the first buildings on the campus will be fed with a 480V service from St. George Power. There is existing 3-phase power that comes in from the east side of the property on an overhead line. The overhead line then drop underground to the existing service feeding the old airport terminal building. St George Power has indicated that a portion of the overhead line will need to be upgraded and a new underground primary service will need to be developed to serve the both wings of the new building. It is anticipated that a new medium voltage switch will be required to feed the new DXATC campus. The project shall include the design and construction of all primary distribution throughout the DXATC site starting at the overhead pole. The project will be responsible for the providing the riser 10' up the pole, the medium voltage cabling from the overhead pole connection through the DXATC site, medium voltage switches, medium voltage sectionalizers, and building distribution transformers. All primary distribution work must be completed by Contractors on the St. George Power prequalified contractors list. Buildings will be individually metered in compliance with the St. George Power standards. A separate transformer and electrical service shall be provided for both the Professional Trades Building – East Wing and the Industrial Trades Building – West Wing, these are estimate to be 2500kVA and 1500kVA respectively. The final siting of the Professional Trades Building – East Wing may require relocation of the underground electrical service currently feeding the existing terminal building, this will be determined during design after the final building siting has been solidified. The St. George Power contact is Barb Berrett.

SITE TELECOMMUNICATIONS RACEWAYS

Minimum of (4) 4" conduits shall be provided from Century Link into the Professional Trades Building – East Wing with both fiber and copper service. A minimum of (2) 4" conduits shall be installed to connect the Professional Trades and Industrial Trades wings of the Building. Additional 4" conduits and handholes shall be designed into the project with conduits stubbed out for future campus connections and the anticipated future buildings.

BUILDING SERVICE AND DISTRIBUTION

MAIN SERVICE

Service size for the Professional Trades Building – East Wing is anticipated to be approximately 3000A at 480Y/277V, this assumes 25 W/s.f., the actual service size will be adjust during design to fit the actual load for the building. The service size for the Industrial Trades Building – West Wing is anticipated to be 2000A at 480Y/277, again assuming 25 W/s.f., which will also be adjusted during design to fit the actual building load. Additional step-down transformers will be placed throughout the building to provide 208Y/120V power for computers, outlets, and other 120V equipment and devices. Mechanical and lighting loads shall utilize the 480Y/277V distribution wherever possible to maximize efficiencies and decrease voltage drop concerns.

METERING

Individual secondary utility meters shall be installed for each building service, the meters shall be located on the outside of the building where St. George Power has ready access to them.

Additional Owner digital metering shall be required for each building main service. The applicable DFCM high performance building standard for metering shall be met for this project during the time of design. This standard currently includes the individual metering of the following load types in addition to the building metering: HVAC, lighting, plug loads, loads exceeding 100kW. The Owner metering must also be networked and connected into the building energy metering system.

MOTOR CONTROL CENTERS

Motor control centers shall be considered for areas where 6 or more motors (larger than 5 HP) are grouped and controlled by standard starters. All 3-phase motors 5 HP and larger will be provided with phase-loss protection. Provide disconnect switches within sight of all motors. Provide variable frequency drives (VFD's) where required for mechanical equipment in compliance with DFCM and Campus requirements, and sized at least 10% over the connected motor load. For VFD's 10HP and larger harmonic filtering and mitigation shall be included to limit THID to 12% and voltage distortion to 3% at the VFD input terminals.

PANELBOARDS

Distribution panelboards will be provided in vertically stacked electrical rooms wherever possible. The electrical rooms are to be centrally located within each area as much as possible, while taking into account other building and architectural considerations. Ease and accessibility of running new and future conduits out of each room is an important consideration in defining the location of the rooms. Panelboards serving normal lighting and outlet circuits will be located on the same floor as the circuits they serve. All branch panelboards will have hinged front covers, as opposed to screw-on or latching covers.

SPARE CAPACITY

Switchboards, panelboards, transformers and other distribution equipment will be provided with 25% spare capacity and spaces/spares for future growth and flexibility. Electrical equipment rooms will have 25% additional space for future equipment.

BRANCH CIRCUITS

Branch circuits will be loaded to no more than 80% of what is allowed by NFPA 70. Where outlets are intended for a specific piece of equipment, the load of the outlet will be based on the equipment nameplate. Otherwise, no more than 6 convenience outlets per circuit or 4 outlets per circuit serving workstation computer terminals, on average, will be used. Sufficient capacity for plug-in task lights and other peripherals typical of desk items will be provided. Outlets with dedicated branch circuits (one outlet per circuit) are provided for lab equipment, vending machines, copy machines, break room counters, refrigerators, dishwashers, A/V cabinets and other locations likely to have equipment requiring dedicated circuits. Each branch circuit homerun will have no more than 3 circuits per raceway. Dedicated neutrals for each phase conductor will be provided.

CONDUCTORS

All conductors will be copper. Conductors for branch circuits will be sized to prevent voltage drop exceeding 3% at the farthest load. The total voltage drop on both feeders and branch circuits will not exceed 5%. For measurement purposes, a load of 180 VA (1.5A) per outlet, with a 50% diversify factor will be assumed.

RACEWAYS

All raceways are minimum ¾" C. MC Cable is permitted as per DFCM standards only. Conduit is not allowed to be embedded in elevated concrete slabs. Cable tray system will be such that raceways do not extend more than 50' (approx.) to cable tray. Conduits will be stubbed to the cable tray and contain pull strings. Raceway is included for all security, audio/visual, and technology systems whether furnished as part of the construction contract or furnished by the Owner.

EQUIPMENT AND FURNITURE

Furniture and equipment that is identified in the program will be provided with electrical connections.

FAULT CURRENT AND COORDINATION STUDY

A fault current and coordination study will be performed to indicate available fault current at all points in the distribution system. New equipment will be rated for the amount of available fault current. Fuses or breakers will be selected to ensure minimum system outage due to overloads or fault currents. Set breakers with adjustable long time, short time, instantaneous and/or ground fault settings for optimum system coordination. Per the 2011 NEC, emergency systems will be selectively coordinated to the extent possible.

Surge Protective Devices

Surge Protective Devices (SPD's) and "noise" protection is provided at service equipment (each main) and on main gear and 120/208V distribution panelboards in the facility which serve computer terminals. SPD units will be integral to the panelboard or switchboard. It is recommended that additional surge strips be provided under the furnishings and equipment budget on an as-needed basis. The surge strip should be commercial-grade quality and have at least 26 kA per phase maximum surge rating.

OUTLETS

Outlets will be 20A, minimum. The program and space data sheets will be used as a guideline, but user input will be welcomed during the design. Unless noted otherwise, the following will be used as a general guideline where more specific requirements are not elsewhere identified. Each outlet location will be coordinated with the design team and end user during design. Where the term "outlet" is used, this refers to a 20A duplex receptacle outlet (unless otherwise noted).

Classrooms, Lecture Halls and other Instructional Spaces: Provide outlets for instructor's station, audio/visual equipment and each student as coordinated with Owner. Ensure that there is at least one duplex outlet for each 10' of wall space. Provide floor outlets where stations or equipment cannot be served directly from the wall without crossing aisle space. Where tables are fixed in place, coordinate power outlets mounted directly into the millwork.

Student Commons, Lounges and Study Areas: Provide power outlets for laptop computers, at least one duplex for 20% of user seats, but no less than one outlet per each 12' of wall space. Provide floor outlets where stations or equipment cannot be served directly from the wall without crossing aisle space. In other areas, floor boxes, conduit stubs or poke-through type devices will be used to provide the required connectivity.

Offices: For each workstation, provide one outlet dedicated to computer terminals and one normal outlet, and one additional normal outlet for every 10' of wall space. Provide sufficient outlets to accommodate task lighting for all staff workstations.

Conference and Board Rooms: One outlet for every 10' of wall space, plus one outlet dedicate to computer terminals on two walls. Provide floor outlets underneath conference room tables. Coordinate installation of outlets in conference table tops with furniture/millwork.

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Building Requirements >> ELECTRICAL, DATA, TECHNOLOGY

Lounges/Breakrooms/Kitchenettes: GFI Outlets on dedicated circuits every 4' on counter top plus dedicated outlets for refrigerator, microwave, dish washer, ice machine and disposal (switched at counter top), plus one outlet for every 10' of other wall space in room.

Counter tops (in general): One outlet every 4'; GFI where within 8' of a sink.

Labs and similar spaces: Provide outlets for instructor's station, audio/visual equipment and each student. Ensure that there is at least one duplex outlet for each 10' of wall space. Provide floor outlets where stations or equipment cannot be served directly from the wall without crossing aisle space. Where tables are fixed in place, coordinate hard wired power connections as required. Provide power to lab equipment.

Main Telecom MDF: Several outlets on emergency power around perimeter or room with circuit density to allow for at least 100 watts per square foot. Coordinate exact quantity required with the User groups and the anticipated equipment, including future provisions as well. UPS power is assumed to be rack-mounted, plug-in style and provided by the Owner. Racks and cable tray within these rooms shall be specified by the engineer and provided within the contract.

Telephone/Data Closets (IDF): At least 6 quad outlets on emergency power with circuit density to allow for at least 50 watts per square foot. Provide a minimum 6-outlet surge/power strip in every equipment rack. UPS power is assumed to be rack-mounted, plug-in style and provided by the Owner. Racks and cable tray within these rooms shall be specified by the engineer and provided within the contract.

Electrical Rooms: At least one outlet on emergency power.

Restrooms: One GFI outlet on wall adjacent to sink at counter height, plus one remote from sink at standard height for breast pumps, vacuum cleaner or power scrubber. Confirm final location with Owner.

Corridors, Lobbies: Provide at least one outlet every 30' along the corridor and spaced at 15' along the lobbies.

Stairs: One outlet at each landing and intermediate landing.

Storage Rooms (small), Janitors Closets: One outlet, near light switch.

Building Exterior: One WP/GFI convenience outlet near each entrance, or a minimum of every 120 feet; additional outlets as needed for special events. Coordinate with users during design.

Plaza & Café/Rooftop Terrace: Provide WP/GFCI convenience outlets throughout these spaces at select gathering and seating areas. Provide a minimum of one outlet for every 10' of wall space. Provide outlets for specific equipment located within the space.

Other Areas: Refer to individual space plan data sheets, and where not defined coordinate requirements with user during design.

GROUNDING

All feeder and branch circuit raceways will include an insulated equipment grounding conductor. Provide a grounding riser system throughout the telecommunications closets, with grounding bus bars mounted accessibly in each closet. All grounding systems will be bonded together per NEC requirements.

LIGHTNING PROTECTION

A lightning protection system analysis in accordance with NFPA has been completed and a lightning protection system is recommended. Therefore, a lightning protection system shall be included for both new building unless directed otherwise by the Owner during design. Engage an LPI-certified installer, designer and inspector for the system. Provide a UL Master Label System and comply with NFPA 780.

EMERGENCY SERVICE AND DISTRIBUTION:

An emergency diesel generator shall be provided for the new building. This may either be a single generator shared between the two wings or two separate generators as design permits. A preference shall be given to a single generator due to decreased maintenance. Generator location(s) will be carefully selected to minimize noise to occupants and neighboring areas. Generator exhaust shall be coordinated with HVAC intake to avoid intake of generator exhaust and fumes into the building. A sound-attenuating housing and skid-mounted, double-walled fuel tank shall be included. Fuel storage run time shall be coordinated with Owner, but in no case shall be less than 24 hours at full load per DFCM standards. Design at least two transfer switches: one for emergency and one for non-emergency ("Optional Standby Systems"). Annunciate alarms adjacent to fire alarm panel. Design generator distribution panel with digital metering. The following will be provided with emergency power:

- Emergency egress and exit lighting
- Fire Alarm
- Communications and Server rooms (including main computer room) – outlets, lights and air conditioning
- Electrical rooms – lights and outlets
- Security systems
- BMS
- Computer controlled sensitive machinery as coordinated with Owner during design
- Select lab equipment such as freezer and refrigerators as coordinated with Owner during design
- Select loads as determined by the Owner during design

PHOTOVOLTAIC GENERATION

It is a desire of the campus to provide as much PV generation as possible for this project; however, the current budget does not support the PV systems. At minimum, the building shall be designed for future PV so it can easily be added in the future.

LIGHTING**GENERAL**

The basis for design shall be the IES and its Recommended Practices, such as RP1-93 "Office Lighting", RP3-00 "Lighting for Educational Facilities", and RP-33-99 "Lighting for Exterior Environments". For exterior lighting, indirect lighting, and other specialized task lighting, a point-by-point plot of illuminance establishing conformance with the Recommended Practices shall be furnished. Fluorescent ballasts shall be 10% THD to minimize system harmonics. The amount of different lamp types shall be minimized, making replacement and maintenance easier. Comply with DFCM design standards for technology preferences. Lamps shall comply with EPA TCLP requirements.

ASHRAE 90.1 requirements shall be met and exceeded to meet the overall project requirement to beat this energy code by at least 20%. Comply with the DFCM energy standard (currently in development). Energy savings design techniques such as daylighting dimming control, occupancy sensors, vacancy sensors, centralized and de-centralized control systems, energy efficient lamps/ballasts shall be used where practical to maximize energy efficiency. A preference shall be given to LED fixtures for both interior and exterior use, with general direction of greater than 50% of fixtures should be specified as LED. A strong preference to LED fixtures shall be given where economically competitive and/or where dimming is required.

EXTERIOR LIGHTING

Exterior lighting will utilize full cut-off fixtures, fixtures shall be coordinated with Owner during design and should set the campus standard with at least 3 manufacturers who can provide an equivalent fixture based on aesthetics and performance. Control exterior lighting utilizing combination photocell and time schedule control with multilevel zoning or dimming incorporated into the control scheme.

INTERIOR LIGHTING

Interior lighting will use fluorescent lamps or LED sources to the greatest extent possible, with the 4' T8 lamp and LED sources being the preference based on maintenance and cost. HID sources may be considered where needed to provide the required illuminance levels in large volume spaces, but the issues of restrike time and the desirability of instant on need to be addressed. Incandescent sources should be avoided altogether. LED sources will be evaluated and given preference where economically feasible. All fixtures shall be easily maintained and replaceable.

For offices and meeting rooms, volumetric lay-in and pendant indirect lighting should be strongly considered, but must be carefully coordinated in rooms with projectors so that the fixtures will not interfere with the projected image. Select luminaires for areas where VDTs are planned which are designed to minimize ceiling reflections, and provide multilevel lighting control and task lighting to reduce the illuminance on the VDT. In addition, in rooms with audio visual, design lighting with variable levels as indicated with a separate controlled zone to reduce glare and illuminance on the audio visual display. In rooms with projectors, provide a separate bank of lighting control switches or station near the instructor position for ease of controlling lighting during presentations.

For labs and classrooms, provide directional lighting with high vertical illumination to provide lighting for broadcasting and good camera images in areas where video conferencing will be utilized. Lighting shall be provided with dimming to allow light levels to be adjusted and to balance between good vertical illumination glare.

For spaces where glare control is not required, fluorescent, lay-in fixtures may be used. This includes corridors, workrooms, restrooms, common areas, equipment rooms and storage rooms. Recessed LED downlights shall be used in areas where aesthetics call for an upgraded appearance, such as in main lobbies.

All interior lighting shall be controlled by some automatic means. This shall include vacancy sensors for smaller enclosed areas and relay control with clock and/or timer supervision for larger areas. The corridors and common areas shall be controlled through a lighting control system or occupancy sensors with local wall switch override. Wherever natural daylight is provided, incorporate daylighting dimming controls to promote energy savings by using artificial lighting only as needed. This can be accomplished with automatic dimming, stepped switching or simple on/off control is discouraged and should be avoided. All lighting shall be "instant on" to facilitate quick response to demand and power interruptions.

Exit and emergency lighting shall comply with the IBC. Emergency lighting for means of egress to 1 fc average, 0.3 fc minimum, shall be provided. Emergency lighting shall be included in restrooms, electrical rooms, and communication rooms.

See adjacent, *Table 1*, for summary of lighting levels and control methods for important spaces.

FIRE ALARM

CAMPUS FIRE ALARM AND LIFE SAFETY

Comply with Utah State Fire Marshal's "Rules and Regulations" and DFCM requirements. Design an addressable system capable of reporting back to a central campus location or for dial out monitoring by a third party as required by Owner. Design strobes visible from all locations except private offices and coordinate with furniture and equipment plans, keeping in mind standard stack height is 90" and depth of wall shelving may hinder visibility from below. Locate smoke detectors through corridors and spaces open to corridors as required by Utah State Amendments. Provide duct detectors and fan shutdown where required by NFPA and the IMC, including detection of smoke at all return air shafts serving multiple floors. Coordinate location of the building annunciator with the AHJ. All other detectors and functions will comply with the referenced codes and standards. All fire alarm wiring will be in conduit. Provide monitoring and control of elevator systems as required by code.

TABLE 1A

TYPICAL AREA	ILLUMINANCE IN FOOTCANDLES	COMMENTS
Classrooms	50	Bi-Level Switched
Labs	50+	Illuminated from above, higher light levels may be required at task locations
Drafting & Design	40	Illuminated from above, higher light levels may be required at task locations
Conference Rooms	40/50	Multi-zoned or dimmed
Lobby Areas	15/30	Daylight Responsive if possible
Offices	20 ambient / 50 task	Daylight Responsive if possible, task lighting provided with furniture
Restrooms	30	
Storage Rooms	10	
Toilet / Changing Rooms	30	
Corridors	10/20	
Medical Labs	50+	Illuminated from above, higher light levels may be required at task locations
Medical Exam Rooms	50+	Illuminated from above, higher light levels may be required at task locations
Surgical Rooms	100+	Illuminated from above, higher light levels may be required at task locations
Corridors	10/20	Illuminated from above, higher light levels may be required at task locations

TELECOMMUNICATIONS

RISER DISTRIBUTION

Stacked telecommunications closets are provided to serve each floor of the building. Equipment layout and wall space will be coordinated with the Owner. Closets are located such that when cabling is routed through the raceway system provided, no cable length will exceed 290' regardless of the path. Consideration shall be given to the ease and accessibility of running new and future raceways and cables out of each room. Four 4" conduits from the MDF to the stacked IDF locations are provided and four 4" sleeves between floors. Both normal and emergency circuits are provided to each IDF, 3 each, with one fourplex per circuit. The air conditioning for these rooms will be on the generator.

HORIZONTAL RACEWAY DISTRIBUTION

A wire basket type cable tray distribution network is provided throughout each floor and into the IDF closets. Cable tray will be routed above corridors, common and similar areas. Where ceilings are inaccessible, provide an equivalent conduit system bridging cable trays in accessible ceilings. It will be the designer's responsibility to size the cable tray and raceway system for the intended cabling installation. Specify that cable runs take routes that will limit the total cable distance, between termination end points, to 290' or less.

VOICE/DATA DROPS

A structured cabling system complete with outlets, cabling, patch panels, and backbone cabling shall be designed and specified by the design team. Each voice/data outlet location will consist of a 4" square box with two gang mud ring and one 1" conduit connected to the nearest cable tray. A minimum of 2 UTP Category 6 cables shall be installed in a typical voice/data outlet box location with additional cables provided where required for higher density needs. Refer to program space plans for quantities and coordinate exact locations with the users during design. As a minimum, provide one voice/data drop for each workstation, fax machine, copy machine, vending machine, desk, computer terminal and teaching station. Allow one voice/data box per 80 square feet for areas that are not specifically defined. Provide wireless access point locations throughout the facility to provide wireless access throughout the facility.

AUDIO/VISUAL SYSTEMS**GENERAL**

Audio and video systems will be specified in full compliance with established campus standards. System equipment will be specified for consistency with manufacturers and models identified by DXATC. All video systems will be digitally based, deploying HDBaseT switching, processing, distribution, and transport technology. All video systems will be fully compliant with high definition content protection (HDCP) standards.

AUDITORIUM

Auditorium will be provided with fully integrated audio, video, and control systems. Audio systems will amplify the spoken word from presenters, and amplify program audio originating from media source playback devices. The spoken word originating from presenters will be captured using wired, wireless, lapel microphones and/or lectern-mounted gooseneck microphones. Once captured, the audio signal will be processed and amplified to a speaker system. The speaker system will be a point-source system with delay speakers and stage monitors, as needed.

Several media source devices will be provided. These devices will include, but not be limited to, wired connections to portable computers, Blu-ray DVD player, television tuner, and connections to the central control room. Audio originating from source devices will be selected, processed, and amplified to a speaker system. In compliance with the Americans with Disabilities Act, a wireless assisted listening system will be provided.

One electric roll-up, tensioned cabled, 16:9 or 16:10 video projection screen will be provided for the display of media content. Projection screen will be sized using AV industry-wide accepted standards for the nearest and furthest viewers. Carefully coordinate projection screen location with seating layout to assure appropriate viewing sight lines. Specify projector with a minimum native resolution of 1920 X 1080 in a 16:9 format or 1920 X 1200 in a 16:10 format. As with screen sizing, apply AV industry-wide accepted standards in calculating the required light output for each projector to assure that images will not be "washed out" by ambient room lighting. Additionally, specify an approximate 21.5" LED monitor with a native resolution and aspect ratio that matches the specified projectors for use on the lectern.

Fully integrated control systems will be provided for control of all audio and video system functions and room lighting systems. The resident user interface (UI) will be a touch panel located at the stage. Additionally, specify the capability for faculty wireless tablet computers to be used as the UI. Program UI graphics specific to the room in which it is deployed. To the extent directed by the Owner during the design process, specify that single control commands will result in the execution of multiple AV system, lighting system, and, if applicable, motorized window covering events (Macros). Program all control system processors to be networked with the building-wide control system management software and central control room.

Specify an Ethernet network camera video feed and audio system output from the auditorium for use by the central control room. In addition, specify an HD quality robotic camera video feed, accompanying audio output, and room media content feed for lecture capture and streaming.

This space will also be provided with additional auditorium specific AV system enhancements. The auditorium specific AV system enhancements will include attributes as identified by the Owner. Extend audio and video signals into the adjacent pre-event space using appropriate speaker systems and large flat panel LED monitors.

CLASSROOMS

Classrooms will be provided with fully integrated audio, video, and control systems. Audio systems will amplify the spoken word from presenters, and amplify program audio originating from media source playback devices. The spoken word originating from presenters will be captured using wireless, lapel microphones and/or lectern-mounted gooseneck microphones. Once captured, the audio signal will be processed and amplified to a speaker system. Additionally, several ceiling mounted microphones will be provided to capture student questions for lecture recording, lecture streaming, and voice reinforcement inside the room in a mix-minus configuration.

Several media source devices will be provided. These devices will include, but not be limited to, wired connections to portable computers, wireless connections to tablet computers, computers resident in teaching stations, Blu-ray DVD players, television tuners, and connections to the central control room. Audio originating from source devices will be selected, processed, and amplified to a speaker system. In compliance with the Americans with Disabilities Act, a wireless assisted listening system will be provided.

One electric roll-up, tensioned cabled, 16:9 or 16:10 video projection screen will be provided for the display of media content. Projection screens will be sized using AV industry-wide accepted standards for the nearest and furthest viewers. Carefully coordinate projection screen locations with seating layouts to assure appropriate viewing sight lines. Specify projectors with a minimum native resolution of 1920 X 1080 in a 16:9 format or 1920 X 1200 in a 16:10 format. As with screen sizing, apply AV industry-wide accepted standards in calculating the required light output for each projector to assure that images will not be "washed out" by ambient room lighting. Additionally, specify an approximate 21.5" LED monitor with a native resolution and aspect ratio that matches the specified projectors for use on the lectern. At the Owner's direction during the design process, some rooms may be provided with the ability to write electronically (annotate) over displayed images. Video systems will be equipped with matrix switchers to allow for the display of separate images on the dual projection screens and lectern monitor.

Video conferencing systems with high definition codecs and high definition robotic cameras will be included in one of the STIT/Jobs Now/Custom Fit classrooms, the Opx/Diesel area, and one of the Medical classrooms. Audio for these systems will be captured by the previously mentioned presenter and ceiling microphones.

Fully integrated control systems will be provided for control of all audio and video system functions and room lighting systems. The resident user interface (UI) will be a touch panel located at the teaching station. Additionally, specify the capability for faculty wireless tablet computers to be used as the UI. Program UI graphics specific to the room in which it is deployed. To the extent directed by the Owner during the design process, specify that single control commands will result in the execution of multiple AV system, lighting system, and, if applicable, motorized window covering events (Macros). Program all control system processors to be networked with the building-wide control system management software and central control room.

Specify an Ethernet network camera video feed and audio system output from each classroom for use by the central control room. In addition, specify an HD quality robotic camera video feed, accompanying audio output, and room media content feed for lecture capture and streaming.

CONFERENCE/BOARD ROOMS

Small/Medium Conference rooms (less than 20' long) will not be provided with the capability for voice reinforcement. Speaker systems will be provided for the playback of media content only. Speaker systems will be integral to the large screen flat panel monitors. Large Conference Rooms (longer than 20') will be provided with teleconferencing systems. The Student Services conference room, Executive conference room and the Board Room will be provided with video conferencing systems with high definition codecs, high definition robotic cameras and tabletop microphones. Speaker and amplifier systems will be capable of voice reinforcement and playback of media content. Speakers shall be either ceiling or wall mounted.

All conference rooms will be provided with several digital and analog video inputs and media source devices. These devices will include, but not be limited to, digital and analog inputs for portable computers, and Bluray DVD players. Audio originating from these source devices will be selected, processed, and amplified to the speaker system.

Digitally based, HD base T video systems will be provided to select, distribute, and display digital video signals in their native format; or analog video signals in a scaled format for large screen display of subject matter. A single, approximately 80" large screen LED monitor with RS-232 control will be specified for each small/medium conference room. Monitors will be specified in a 16:9 format, with a minimum native resolution of 1080p. Projectors and projection screens will be specified for each large conference room and board room. Projectors and screens will be specified in a 16:9 format and projectors will have a minimum native resolution of 1080p. Conference rooms will be equipped with an integrated control panel for control of all audio and video system components. To meet this need, a touch control panel will be provided. The control panel will be programmed in full compliance with the end user's desired layout, configuration, and labeling.

FACILITY-WIDE VIDEO SYSTEMS:

Specify base band video distribution systems and RF TV distribution systems for the transport of video and combined audio/video signals. Specify video/TV outlets and the associated approximately 46" diagonal LCD monitors periodically in all public concourses, elevator lobbies, public lobbies, and other similar areas indicated in the space data sheets of the program. Provide amplification of the TV signal throughout the facility. Provide signal strength of between + 5 and 10 dBv, with a minimum bandwidth of 750 MHz. Provide facilities for the distribution of satellite signals to multiple satellite receivers throughout the facility.

DIGITAL SIGNAGE LOCATIONS

Specify an integrated digital signage system throughout the building. Specify remote, small form factor central processing units to be located at each monitor position, for IP addressable, Ethernet distribution of content and basic monitor control. Specify a central digital signage management software package and all required hardware. Include provisions for visual signage of public address announcements for compliance with the American's with Disabilities Act.

FACILITY-WIDE PAGING SYSTEM

A 4-zone public address system will be provided. Although specified primarily for emergencies, the public address system will also be suitable for use regarding building closing, and other similar announcements. The primary input will be a push-button style paging microphone. Additionally the public address system will be integrated with the facility telephone system so that paging can originate from designated telephone sets. Power amplifiers and speaker systems will be provided as appropriate for individual spaces utilizing a constant voltage, 70 volt distribution system.

SECURITY SYSTEMS

Provide and specify within the project access controls and security systems as coordinated with Owner during design. The system shall be an IP based networkable system that could be integrated and used throughout the DXATC campus. CCTV system shall be provided at main entrances and other location as identified by Owner. CCTV system shall be IP based camera system. Provide intrusion detection system integrated with access control system to include door contacts/position switch monitoring as a minimum.

CLOCK SYSTEMS

Provide self-correcting GPS based clock system complete with headend receiver/transmitter and battery powered clocks. Clocks shall be located as directed by Owner.

DISTRIBUTED ANTENNA SYSTEM

A specification shall be included to perform field testing of emergency radio frequencies to ensure compliance with Utah State Law Requirements. If testing results in inadequate signal strength for the emergency radio frequencies, a DAS design shall be completed and system installed as a change order to meet required signal strength.

ACOUSTICAL SYSTEMS

ACOUSTIC SEPARATION

Acoustic separation is a function of the attenuation provided by the partition and the background sound level in the receiving room. If the listener is in a quiet space, intruding sounds are more apparent, while a room with a higher background sound level can mask intruding sources and make them less noticeable or distracting. This higher background sound level is typically provided by the HVAC system or a sound masking system. However, for the Auditorium and the Board Room, the background sound level will be relatively quiet, given the use of these spaces.

For various room adjacencies, the table below indicates the sound attenuation that will be provided by each partition between these spaces. STC stands for Sound Transmission Class and is a single number rating that represents the decibel reduction provided by the separating assembly; it is provided here to indicate the performance of the assembly. These partitions are mostly walls, but some are necessary floor/ceiling assemblies. These STC ratings are based on expected activities and their associated sound levels in the source and receiving rooms.

TABLE 2

SOURCE ROOM	RECEIVING ROOM	PARTITION SOUND ATTENUATION
Shop	Offices	STC 70+
Auditorium	Corridor	STC 65
Auditorium	Mechanical	
Auditorium	Stairs	
Level 3 Offices	Board	
Board Room	Classroom	STC 60
Administrative Conference Room	Administrative Break Room	
Classroom	Classroom	STC 55
Conference	Administrative Break Room	
Classroom	Corridor	STC 50
Conference	Corridor	
Office	Office	

Another component of acoustic separation is the use of vestibules, acoustical doors and door seals. Vestibules consist of two sets of doors at the entrance to a performance space. The inner door, closest to the performance has full seals, but no latching hardware. This door is separated from the outer door by a small room and the outer door has full seals with latching hardware. Vestibules are recommended for the Auditorium. Acoustical doors consist of an acoustical door, frame assembly and seals, and achieve ratings of STC 45-55. Budget \$3,000 per acoustical door. Acoustical doors will be included at Mechanical Rooms that open to occupied areas. Doors with full acoustical seals consist of adding seals to top, jamb and hinge sides of the door frame and a seal and threshold at the bottom of the door. Doors with full acoustical seals will be included at all board and conference rooms and offices where speech privacy is desired.

INTERIOR ACOUSTICS

Interior acoustics relates to the acoustic environment within space: whether it is acoustically “lively,” or acoustically “dead.” This part of the acoustic environment is a function of the amount of acoustic absorption in the room. For the performance spaces, reflective and diffusive surfaces are also important. Reflective surfaces toward the front of the performance spaces provide early reflections to listeners and diffusive surfaces break up large flat walls to mitigate flutter echoes and other harsh reflections, as well as providing lateral reflections that surround listeners and performers and provide a sense of envelopment.

Acoustic performance of the Auditorium will be relatively dry, to provide excellent speech intelligibility, for the primary use of lecture and presentations. This will be achieved through appropriate room volume and acoustical treatments. The room volume will be in the range of 150-200 ft³/seat. Appropriate acoustical treatments will be a combination of reflective, absorptive and diffusive acoustical treatments on the walls and ceiling. Large parallel walls sustain acoustic energy and produce flutter echoes. Flutter echoes are heard as a distinct ‘buzz’ when an impulsive sound such as a hand clap, staccato note or dropped object, excites the room. To prevent this anomaly, the side walls will be shaped to prevent large parallel surfaces and have acoustically absorptive material reduce the reverberation in the room. The rear wall will be treated with acoustical absorptive material to prevent sound from echoing back to the stage. The ceiling will be shaped to assist the natural projection of speech from the stage. This dry acoustic environment will not be conducive to live music performances, so if this space will be used for live music, variable acoustic treatments will need to be included.

Classrooms will also have a dry acoustic response, for good speech intelligibility. They will have a design reverberation time of 0.6 – 0.7s. This will be achieved with acoustical tile ceilings, acoustical wall panels, and carpeted floors.

Large conference rooms and board rooms will have acoustically absorptive ceilings, acoustical wall panels and carpeted floors to provide the appropriate dry acoustic response for video and/or teleconferencing. Small and medium conference rooms will have acoustical tile ceilings.

MECHANICAL NOISE AND VIBRATION CONTROL

The acoustical design goal for HVAC systems is the achievement of a level of background noise that is unobtrusive in quality (frequency content) and low enough in level (amplitude) that it does not distract from the function of the space being served. To be unobtrusive the background noise should exhibit the following characteristics:

- A balanced distribution of sound energy over a broad frequency range to create a sound that is neutral in character.
- No audible tonal characteristics such as a whine, hum, or rumble.
- No noticeable time-varying levels from system-induced aerodynamic instability or air turbulence.

To achieve this unobtrusive quality and level of sound from the HVAC system, loudness curves based on sound level measurements and acceptable levels for various spaces have been developed. The NC values listed in the table below are the levels needed to achieve background sound levels that will not interfere with these specific spaces.

TABLE 3

ROOM	NOISE CRITERIA
Auditorium	NC 20-25
Classrooms	NC 30
Board Rooms	NC 25-30
Large Conference	NC 25-30
Small And Medium Conference	NC 30-35
Presidents Office	NC 30-35
Offices	NC 35-40
Lobby	NC 35-40
Culinary Arts	NC 35-40
Kitchen	NC 40-45

INTRODUCTION

Alpha Engineering has prepared the following summary of civil site work to be completed as part of the program for the development of the New Permanent Campus Building for Dixie Applied Technology Center (DXATC).

BUILDING SYSTEMS PERFORMANCE CRITERIA

The proposed New Permanent Campus Building will consist of two wings and will be located generally north of the existing terminal building at the north entrance to the project off of South Airport Drive. The site is relatively flat with a general slope of 1% and drains to the South. We understand the two wings of the proposed building will be sited such that the existing asphalt for the runway can still be utilized for activities and a training zone and that the two wings will be separated by the new central campus road. Utility infrastructure including water, sanitary sewer, natural gas, power, and telecommunications are available to the site or in South Airport Drive, directly adjacent to the east side of the site.

Following is a summary related to the utility infrastructure for the New Permanent Campus Building.

WATER

There are existing 6- and 8-inch culinary water lines on both the east and west sides of the DXATC property, which are fed from a 12-inch main line at the intersection of Donlee Drive and 265 South Street. As discussed in the Master Plan document, it is anticipated that new 8-inch water mains will be required on-site creating loops around the master-planned buildings and connecting the existing east and west lines. We anticipate the first 8-inch loop shown in Figure 2 (see following page) of the Master Plan located on the North side of the proposed wings of the New Permanent Campus Building may be necessary for the construction of the new building; however this should be verified with a system model. At a minimum this loop line should be extended through the proposed construction north of the two wings and also stubbed south along the new central campus drive to facilitate future extension as the campus continues to grow. Services and fire riser connections to the new building will tie into the 8-inch main lines with the exact locations and sizes as dictated by the mechanical engineer. Fire Hydrants will also be connected to the 8-inch main to serve the new building wings.

Landscaping irrigation will be taken from the primary culinary water line as there is not a separate secondary water system in the vicinity. Backflow prevention devices approved by the City of St. George will need to be installed at all secondary connection points.

It is recommended that the DXATC consider designing their irrigation system(s) with a loop such that if secondary water is ever made available to the property it could be easily converted.

SEWER

Two separate sewer lines exist along the east side of the property: an 8-inch line draining to the south and a 6-inch line draining to the north (see Figure 1, following page). It is anticipated that a new 8-inch sewer main will need to be constructed to serve the New Permanent Campus Building and will be extended from the existing sewer manhole in front of the existing terminal building as shown in Figure 2 of the Master Plan Document.

It should be noted that invert elevations are shallow near the existing terminal building. If this line is extended from the terminal building as recommended, coordination with the finish floor elevations of the two wings and with the mechanical engineer will be necessary to ensure proper slope is maintained per local code requirements. Extending the sewer line from the manhole in front of the terminal building may not allow for adequate depth for new buildings to the north and west. The existing sewer line may need to be lowered from the existing manhole in Airport Drive, which has adequate depth to service the new buildings to the north.

Manholes and other appurtenances will be required and coordinated with the City of St. George wastewater department. Depending on building requirements, acid tanks and/or grease traps may be required per City of St. George Standards.

POWER

Existing overhead power lines are shown in Figure 1 of the Master Plan document. It is understood, through preliminary coordination with St. George Energy Services, that single- and three-phase power is available. Depending on load requirements for the buildings, switchboxes and transformers can be installed at strategic locations to satisfy the demands. As more detailed design is completed for the site and load requirements are established, a detailed design and cost estimate of the power system bringing service to the site will be provided by St. George Energy Services.

GAS

There is an existing 3" gas main line along Airport Road east of the property with a service line running into the existing terminal building. It is anticipated that this line will be adequate to serve the New Permanent Campus Building; however gas service line size will need to be coordinated with Questar Gas when building loads are available for the two wings. Separate meters may be required for the two wings depending on service requirements.

COMMUNICATIONS

We understand fiber and cable communication lines are available at the existing terminal building. These services can be extended to the new building with the addition of communication pedestals or along master planned communications corridors. The extensions will need to be coordinated with Baja Broadband for cable and Century Link for fiber.

GRADING AND DRAINAGE

The location of the two wings of the New Permanent Campus Building on the property is located such that drainage slopes to the east, west and south. A small tributary area to the north conveys minor flows onto the proposed building site. These tributary flows will need to be routed around the building to continue through the site southward. Grading of the building and parking areas should be performed such that all flows generated on-site should be conveyed away from the building and directed to the south end of the site along the new central campus road. The building pad should be a minimum of 6 inches above the adjacent finish grade or as necessary to maintain positive drainage away from the building wings in all directions. Grading of the site should include analysis of the parking and provide for ADA accessibility to meet current codes. Grading of the Industrial Trades wing should be completed as to maximize the use of the existing runway.

A site specific hydrology study will need to be completed as part of the building design and will determine whether detention is required for the proposed construction. As per City of St. George code requirements, detention would be required to detain all storm water flows exceeding existing conditions. In addition, mitigation may be necessary to dissipate flows and/or restore drainage conditions to pre-development conditions. The Central Campus drive should be analyzed in the hydrology study to ensure that it will safely convey both tributary flows and on-site flows through the campus. Storm drain infrastructure may be necessary if the proposed road is not adequate to convey the expected storm water flows.

LANDSCAPE PRINCIPLES

The development and implementation of outdoor spaces is crucial to the character, coherence, and comfort of the DXATC campus. The spaces between the buildings on campus form the common campus environment, and will be the medium that helps to create the identity and sense of place unique to its placement on the historic old St. George airport bluff. While the design of outdoor spaces will be specific to the St. George climate and geography, future landscape architectural design on the DXATC campus should contribute to the creation of a safe, long lasting, and viable campus environment that will accommodate all students and all modes of student transport and traffic. The following section describes landscape design principles common to all phases, both current and future. Specific landscape guidelines unique to DXATC campus master plan are outlined below.

OVERARCHING LANDSCAPE PRINCIPLES:

- > Demonstrate DXATC's commitment to sustainability through best management practices.
- > Create a cohesive identity and sense of place throughout the campus by establishing a unified ground plane.
- > Landscape architectural design must consider ways to sensitively mitigate and respond to the Mojave Desert climate and unique soil and red rock formations for human comfort.

SUSTAINABILITY

Since the DXATC campus is a central component and partner in their respective communities, it is in a position to not only create a sustainable identity for itself, but also to serve as a model of sustainability for the surrounding community and to promote meaningful change. Future design concepts should establish the DXATC campus as a venue for living laboratories of sustainable landscape practices that focus on the reduction of energy and resource consumption. Landscapes should be designed to reduce energy consumption and costs associated with maintenance. Simple things such as selecting the right plant for the right place to avoid having to excessively prune or replace material can greatly reduce costs and resources associated with landscape maintenance.

SUSTAINABILITY KEY ELEMENTS:

- > Specify low water use and low maintenance plants. Allow room in the design for plants to reach their mature size without extensive pruning or removals.
- > Locate trees to provide shade and provide natural cooling for buildings.
- > Practice/develop techniques for improved tree growth, with use of structural soil and tree planters in or near hardscape edges.
- > Where possible, specify vertical landscape systems to create "green facades" for cooling buildings and reducing mechanical costs.
- > Design landscape and hardscape spaces to accommodate bicycle dismount zones with ample storage and social programs such as bicycle co-ops and rental programs.
- > Investigate techniques for water harvesting, such as collecting condensate from HVAC systems, reusing rainwater runoff, and recycling gray-water.

COHESIVE IDENTITY

Future landscape architectural designs for the DXATC campus should establish the campus as an exciting destination; connect students, faculty, and staff in a meaningful way; and cater to the individual DXATC student. Future design efforts should also strive to establish an aesthetically uniform ground plane within the campus. Defining a consistent palette of paving materials and a simple and consistent palette of trees and understory plantings for all pedestrian routes and streetscape corridors increases campus legibility and continuity and establishes a cohesive campus identity. The landscape plays a vital role in making DXATC a place in which those

- A** - AMPHITHEATRE GATHERING SPACE
- SITE AND SEATING WALLS
- VERTICAL GATEWAY MONUMENTS
- MAIN ENTRY PAVER PLAZA
- WATER FEATURES
- TREE ORCHARD FOR SHADE
- B** - CONCRETE WALKWAYS FOR GRADUATE PROCESSION
- BANNERS AND FLAGS ALONG PROCESSIONAL ROUTE
- LARGE OPEN LAWN AREAS
- SHADE STRUCTURES ALONG MAIN CONCRETE PATHWAYS/SIDEWALKS
- C** - OUTDOOR EATING PLAZA
- SITE WALLS
- GRAPE VINES/ORCHARD
- EDIBLE GARDEN
- EDUCATIONAL GARDEN
- D** - URBAN STREETScape
- STREET LAMP LIGHTING
- SEAT WALLS
- MODERN BENCH SEATING
- RAISED PLANTERS
- PAVER PLAZAS
- HANGING PLANT BASKETS
- E** - CAMPUS LAWN
- SITE/SEAT WALLS IN CAMPUS LAWN
- SHADE AND ORNAMENTAL TREES
- SHADE STRUCTURE ALONG MAIN CONCRETE WALK
- PAVER PLAZA AT BLDG ENTRANCE
- F** - SOUTH CAMPUS LAWN/OPEN SPACE
- SITE/SEAT WALLS IN ORCHARD AND CRUSHED ROCK PATIO
- SOUTH GATEWAY MONUMENT AND WATER FEATURE
- PAVER PLAZA AT BLDG ENTRANCE
- CONCRETE PEDESTRIAN WALKWAYS
- G** - ICONIC VERTICAL LANDMARK MONUMENT FEATURES
- CIRCULAR PAVER/ENHANCED PAVING AT ROUNDABOUTS AT NORTH AND SOUTH
- DECORATIVE PLANTINGS/COLOR /INTEREST AT BASE OF LANDMARK MONUMENT FEATURES
- H** - STREET TREES ALONG SOUTH OF DXATC CAMPUS
- PARKWAY PLANTINGS UNDER STREET TREES
- I** - FUTURE CITY PARK/OPEN SPACES
- OVERLOOKS
- CRUSHED ROCK PATHS
- ASPHALT TRAILS CONNECT TO COMMUNITY AND CAMPUS
- LARGE OPEN LAWN SPACES
- SHADE AND ORNAMENTAL TREES
- SCENIC OVERLOOKS AND DECKING



coming to the campus to learn or work will want to converse, exchange ideas, socialize, and live. A large component of establishing each campus as an exciting destination and an overall great community gathering place comes from careful planning and the integration of academics, research, and outdoor hands on learning, and living activities all connected in such a way that interaction and communication are easily facilitated. The design of the landscape in which all of these activities exist greatly contributes to the success of these spaces, and the campus character in general. The design of the landscape must address the surrounding architecture and streetscape, and perhaps most importantly, the pedestrian spaces. All diverse activities must be tied together with landscapes that are purposeful, safe, vibrant, and attractive open spaces that invite human interaction.

DXATC is proud to foster a spirit of individualism that attracts a wide diversity of students. Each student on campus is an individual who possesses unique needs; and so outdoor spaces should be designed to be flexible and able to accommodate a variety of functions and users. Beyond creating comfortable, flexible spaces, the landscape must be designed to accommodate individuals with special needs and concerns, as well. Outdoor spaces must meet Americans with Disabilities Act Accessibility Guideline requirements, and should also be designed to enhance the comfort of those students with visual or auditory impairments. Textural surface treatments along the pedestrian walkways and in locations where pedestrian and vehicular paths intersect should be provided. While it is important to create a strong campus identity to help students and visitors navigate the grounds, the landscape design must blend the campus boundary into the surrounding urban fabric. Way-finding should be located at gateways, and pedestrian and vehicular nodes to define particular malls and streetscapes.

DXATC banners, markers, signs, and identifiable plantings should improve way-finding on campus without visually or physically separating the campus from the surrounding community

COHESIVE IDENTITY KEY ELEMENTS:

- > Design landscape and hardscape areas to reinforce and improve campus way-finding.
- > Provide adequate way-finding at gateways, malls, and pedestrian and vehicular nodes.
- > Design flexible and comfortable spaces to allow for small and large group assembly and encourage social interaction.
- > Provide ample shade with fixed and flexible seating arrangements.
- > Establish a consistent ground plane palette of paving materials for all pedestrian routes and streetscape corridors.
- > Establish a simple and consistent palette of trees and select understory plantings for all pedestrian and streetscape corridors.

HUMAN COMFORT

Every aspect of the landscape design must consider ways to respond to the Mojave Desert climate. First and foremost, the intense desert heat and moderate mild winters dictate that the designer create ample shade in order to render outdoor spaces usable throughout the year. The provision of shade should be implemented in as many ways as possible; from the canopies of trees arranged in groves or linear allées, to architectural elements such as pergolas, fabric awnings, building entry coverings and portals, and even shadows cast by the buildings themselves.

HUMAN COMFORT KEY ELEMENTS:

- > Items to consider in this regard are the incorporation of a variety of gathering spaces and gardens, with special emphasis on the microclimates created by buildings and solar orientation.
- > Consider sun exposure and orientation when selecting materials to reduce reflected heat and glare.
- > Consider a variety of ways to incorporate shade from trees and other vegetation, fabric awnings, and entry coverings.
- > Enhance the campus by planting trees in groves in plazas and in linear Bosque's along walkways. Consistent shading along pedestrian corridors will be essential.

THE RESULT

To ensure responsible stewardship of the College's resources, landscape architectural work should be coordinated with the architectural goals and mission of the College. All new construction and major renovation work should comply with the DXATC Design Guidelines and should work to accompany the mission and vision of DXATC to be: Forward Thinking. Future Focused. Job Ready.



OVERVIEW:

The areas of the Dixie Applied Technology Center Culinary Arts program and Program Support that incorporate some aspect of Food Facilities and functions include; Servery Kitchen, Production Kitchen/Culinary Foods Lab, Skullery, Demonstration Classroom, Refrigerated Storage, Dry Storage, Storage, Offices and Custodial-Linens.

DESIGN NARRATIVE BY AREA:**SERVERY KITCHEN/CAFETERIA:****PROGRAM SUPPORT SHARED WITH CULINARY ARTS**

This Servery Kitchen supporting the Cafeteria service which will also act as a lab space for the Culinary Arts program is programmed at approximately 630 NSF of the 1,600 NSF programmed for the entire cafeteria space. The function of the space is to teach commercial food service meal execution technique that will prepare the menu items to be served in the Cafeteria. This area is to be directly accessible to Cafeteria Dining area, and adjacent to Kitchen/Foods Lab and Scullery and proximate to Storage.

The area includes a cooking area requiring a Type I exhaust hood with cooking equipment including a four burner range top, flat top griddle, open face broiler, salamander broiler and triple fryer and a refrigerated grill stand. A cold food assembly table and hot food warmer, reach-in refrigerator and freezer, refrigerated display case and hand sink are to be provided. There will be a self serve beverage counter merchandising refrigerator, order area and a food pick-up area with a cashier stand at the entrance to the dining area. A bussing station will be provided adjacent to the Skullery to accommodate clean up.

KITCHEN/FOODS LAB:**PROGRAM SUPPORT SHARED WITH CULINARY ARTS**

This Kitchen/Foods Lab space is programmed at 1,760 NSF. The function of the space is to teach commercial food preparation and prepare food to be served in the Cafeteria and to catered events. The lab is split in two areas separated by a common wall but open between them. Each lab will include six stations oriented towards a demonstration/teaching cook line. This area is to be directly accessible to students and adjacent to Servery Kitchen, Skullery and proximate to Storage and Demonstration Classroom.

One of the classroom lab areas will include a cooking area requiring a Type I exhaust hood with cooking equipment including four six burner ranges with oven base and two convection ovens. Two reach-in refrigerators and freezer, stainless steel prep sink, adjustable storage shelving and hand sinks are provided. This area will also include a bakery area with a 60 quart mixer, proof box and bakery deck oven requiring a Type II exhaust hood. Preparation equipment including slicers, food processors and blenders will be included.

One of the classroom lab areas will include a cooking area requiring a Type I exhaust hood with cooking equipment including one six burner ranges with oven base, convection oven, combi-oven, 25 gallon tilt kettle, steamer, dual fryer, flat top griddle and open face broiler. One reach-in refrigerator and freezer, stainless steel prep sink, adjustable storage shelving and hand sinks are provided. Preparation equipment including slicers, food processors and blenders will be included.

SKULLERY:**PROGRAM SUPPORT SHARED WITH CULINARY ARTS**

The Skullery support space is programmed at 240 NSF. The function of the space is to wash utensils, pots and pans, plates, glasses, cups and flatware. This area is to be adjacent to the Kitchen/Foods Lab and Servery Kitchen bussing area.

The area will include clean and dirty dish tables, dishwasher, pot sink, rinse sink, carts, hand sink and adjustable metal shelving.

DRY STORAGE:**PROGRAM SUPPORT SHARED WITH CULINARY ARTS**

This Dry Storage space is programmed at 150 NSF. The function of the space is to store food item supplies. This space must maintain a 55 F to 70 F maximum temperature. This area is to be adjacent to the Kitchen/Foods Lab and proximate to the Receiving Area.

The area will incorporate adjustable storage shelving.

REFRIGERATED STORAGE: FREEZER AND COOLER:**PROGRAM SUPPORT SHARED WITH CULINARY ARTS**

This support space is programmed at 300 NSF. The function of the space is to store refrigerated and frozen bulk food delivered to the facility. This area is to be adjacent to the Kitchen/Foods Lab and proximate to the Receiving Area.

This area will include a pre-fabricated walk-in cooler/freezer box with refrigeration systems, rust free storage shelving and an insulated floor system at the freezer and at the cooler if not slab on grade.

CUSTODIAL/LINENS:**PROGRAM SUPPORT SHARED WITH CULINARY ARTS**

This Custodial/Linen space is currently not programmed and will require approximately 120 NSF. The function of the space is to store chemicals and janitorial supplies, wash linens used in the foods lab and server areas and accommodate a mop sink. This area is to be adjacent to the Kitchen/Foods Lab and proximate to the Servery.

The area will incorporate adjustable storage shelving, janitor's sink and residential washer and dryer.

OFFICE:**PROGRAM SUPPORT**

This office space is currently programmed at 100 NSF. The function of the space is to provide the kitchen manager an area to work and prepare for food services functions. This area is to be adjacent to the Kitchen/Foods Lab and proximate to the Receiving Area.

The area will incorporate office furniture, file cabinets and computer and printer technology.

DEMONSTRATION CLASSROOM:**CULINARY ARTS**

This classroom space is currently programmed at 960 NSF. The function of the space is to demonstrate and teach commercial food preparation techniques and skills. The space will accommodate up to (24) students in a classroom setting. This area is to be directly accessible to students and adjacent to Kitchen/Foods Lab and Skullery and proximate to Storage and the Culinary Arts office.

The classroom includes an island demonstration counter incorporating small open face broilers, flat top griddles and open burners, requiring a Type I Exhaust hood. The space will also include a six burner range and convection oven with a Type I hood located behind the demonstration island counter. The area will include reach-in refrigerators and freezer, a pot washing sink and a hand sink.

STORAGE:**CULINARY ARTS SHARED**

This storage space is currently programmed at 120 NSF. The function of the space is to store supplies including pots and pans, utensils, paper goods and other non-food items including records. This area is to be adjacent to the Kitchen/Foods Lab and Demonstration Classroom and proximate to the Culinary Arts office and Receiving Area.

The area will incorporate adjustable storage shelving.

<< Building Planning Detailed Space Area Summary

DEPARTMENT	EAST WING ASSIGNABLE NET-SQUARE-FEET (NSF)	WEST WING
01 ADMINISTRATION	9,986 NSF	0 NSF
02 PROGRAM SUPPORT SPACES	30,571 NSF	0 NSF
03 DIESEL TECHNOLOGY PROGRAM	0 NSF	13,461 NSF
04 DRAFTING & DESIGN PROGRAM	5,019 NSF	0 NSF
05 IT PROGRAM	2,205 NSF	0 NSF
06 OFFICE MANAGEMENT PROGRAM	2,835 NSF	0 NSF
07 MEDICAL ASSISTING PROGRAM +	10,002 NSF	0 NSF
08 PHARMACY TECH PROGRAM	1,995 NSF	0 NSF
09 APPRENTICE PROGRAMS / HVAC	0 NSF	10,101 NSF
10 DENTAL OFFICE & DENTAL ASSISTANT PROGRAMS	2,825 NSF	0 NSF
11 OpX	0 NSF	9,644 NSF
12 CATAPULT	1,596 NSF	0 NSF
13 CUSTOM FIT	410 NSF	0 NSF
14 JOBS NOW / STIT	5,586 NSF	0 NSF
15 AMERICAN HEART ASSOC.	0 NSF	0 NSF
16 CULINARY ARTS (FUTURE)	1,260 NSF	0 NSF
17 WELDING (FUTURE)	0 NSF	3,570 NSF
18 AUTOMOTIVE & AUTOBODY PROGRAMS (FUTURE)	0 NSF	6,174 NSF
19 GRAPHIC ARTS (FUTURE)	1,365 NSF	0 NSF
20 FLORAL & LANDSCAPE	2,646 NSF	0 NSF
30 BUILDING SUPPORT SPACE	16,836 NSF	6,035 NSF
	SUBTOTAL: 95,135 NSF	48,985 NSF
35 EMERGENCY TRAINING CENTER: WILDLAND & STRUCTURE FIRE, ENGINE ACADEMY, AIR-CONDITIONED PARKING BAYS, P.A.C. TEST AREA, TERMINAL BLDG) EXPANDED DISPATCH FACILITY, POLICE ACADEMY, AMT, EMT, E.V. OPS, ETC (NOT INCLUDED IN PROGRAM - PARTIALLY LOCATED IN REMODELED)	0 NSF	0 NSF
40 CIRCULATION, ACCESS, STRUCTURE / WALLS	25.00% 23,784	9,797
	TOTAL: 118,919 GSF	58,782 GSF

ANALYSIS

The total GSF for east and west wings of the New Permanent Campus Building is approximately 177,701 sf. The area of the Professional Trades Wing sums to 118,919 GSF with the Industrial Trades Wing totaling 58,782 GSF. These values include the following departments and programs:

- > Administration
- > Program support spaces
- > Diesel Technology
- > Drafting and Design
- > Information Technology
- > Office Management
- > Medical Assisting
- > Pharmacy Technology
- > Apprentice/HVAC
- > Dental Assisting and Dental Office
- > OPx
- > Catapult
- > Custom Fit
- > Jobs Now/STIT
- > Culinary Arts
- > Welding
- > Automotive and Autobody
- > Graphic Arts
- > Floral and Landscape
- > Building Support Space

A typical .25 (25%) grossing factor was applied to the NSF of the Professional Trades Wing, and .20 (20%) grossing factor was applied to the NSF of the Industrial Trades Wing to get to the final gross square footage amount. The gross factor is for circulation, wall thickness, shafts and ancillary spaces. The following section presents a detailed summary of required spaces and desired size for each department and program.

Building Planning >> EAST WING
Department Space Summaries

01 ADMINISTRATION								"PLUGGED IN AT THE HEART OF THE FACILITY" LEVEL 2	
FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES	
A. OFFICES - PRIVATE	1. PRESIDENT'S OFFICE	SPACE FOR SM. CONF. TABLE + SOFA	1	300	300	1	300	+ RR, ADJ. TO BOARD RM & EXIT	
	2. VICE PRESIDENT'S OFFICE	SPACE FOR SM. CONF. TABLE	1	225	225	1	225		
	3. DIRECTOR OF STUDENT SERVICES	SPACE FOR SM. CONF. TABLE	1	225	225	0	0	SEE STUDENT SERV. SUITE IN 02	
	4. DIRECTOR OF INDUSTRY TRAINING	SPACE FOR SM. CONF. TABLE	1	225	225	1	225		
	5. DIRECTOR OF MARKETING	SPACE FOR SM. CONF. TABLE	1	225	225	1	225		
	6. DIRECTOR OF HUMAN RES.	SPACE FOR SM. CONF. TABLE	1	225	225	1	225	HR, PAYROLL, PURCHASING	
	7. FOUNDATION COORDINATOR	SPACE FOR SM. CONF. TABLE	1	225	225	0	0	SEE STUDENT SERV. SUITE IN 02	
	8. FINANCE DIRECTOR(S)	SPACE FOR SM. CONF. TABLE	1	225	225	3	675		
	9. CUSTOM FIT DIRECTOR	SPACE FOR SM. CONF. TABLE	1	225	225	3	675		
	10. ASSISTANT (MARKETING, CUSTOM FIT)		1	120	120	2	240	ADJ. MARKETING DIRECTOR	
	11. GROWTH - FUTURE V.P.	SPACE FOR SM. CONF. TABLE	1	225	225	1	225	FUTURE GROWTH	
	12. GROWTH - FUTURE DIRECTOR	SPACE FOR SM. CONF. TABLE	1	225	225	1	225	FUTURE GROWTH	
	13. GROWTH - FUTURE OFFICE		1	120	120	1	120	FUTURE GROWTH	
B. OFFICES - OPEN WORK STATIONS	1. EXECUTIVE ASSISTANT		1	120	120	3	360	PRES, VP, & IND. TR.	
	2. ADMINISTRATIVE ASSISTANT		1	120	120	4	480	2 (EA.) ADJ. TO FINANCE & HR	
	3. GUEST WORK STATIONS		1	120	120	2	240		
	4. RECEPTIONIST		1	120	120	1	120		
	10. GROWTH - FUTURE ASSISTANT		1	120	120	1	120	FUTURE GROWTH	
C. ADMIN SUPPORT SPACES	1. MAIN WAITING AREA	GLASS SECURITY DOORS	12	35	420	1	420		
	2. BOARD ROOM	FLEXIBLE CONFIG. (W/ US/DXATC FLAG)	48	30	1,440	1	1,440	VIEW TO NORTH EAST	
	3. BOARD ROOM WARMING KITCHEN		1	200	200	0	0	(SEE 01.C.9)	
	4. BOARD ROOM ANTE ROOM	WITH SERVING BUFFET	18	30	540	1	540	ADJ. TO BOARD ROOM/KITCHEN	
	5. ADMIN CONFERENCE ROOM		18	30	540	1	540	ADJ. TO KITCHEN	
	6. MARKETING WORK ROOM		2	150	300	1	300	ADJ. TO MARKETING DIR.	
	7. MARKETING CLOSET		1	150	150	1	150	ADJ. TO MARKETING WORK RM	
	8. MARKETING COPY/FAX		1	100	100	1	100	ADJ. TO MARKETING WORK RM	
	9. ADMIN BREAK ROOM		12	25	300	1	300	ADJACENT TO BOARD ROOM	
	10. ADMIN RECORDS ROOM	FIRE-RATED	1	300	300	1	300	ADJ. TO FINANCE	
	11. ADMIN STORAGE ROOM		1	120	120	2	240		
	12. ADMIN WORK ROOM	COPY / FAX & SUPPLIES	1	150	150	1	150		
	13. PRIVATE RESTROOM FOR PRESIDENT'S OFFICE		1	100	100	1	100	ADJACENT TO PRES. OFFICE	
	14. CLOSET FOR PRESIDENT'S OFFICE		1	50	50	1	50	ADJACENT TO PRES. OFFICE	
	15. ADMIN RESTROOMS	W/ SHOWER	1	100	100	2	200		
ADMINISTRATION SUBTOTAL:							9,510		
EFF. FACTOR:							5.00%	476	
ADMINISTRATION TOTAL SF:							9,986	NSF	

02 PROGRAM SUPPORT SPACES								"THE PLACE TO BE" LEVEL 1	
FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES	
A. COMMON AREAS	1. ENTRY VESTIBULE	AIR LOCK	1	100	100	6	600	REQ'D BY LEED @ EA. ENTRY	
	2. MAIN LOBBY	W/ INFORMAL SOFT SEATING AREAS & PLANI	40	40	1,600	1	1,600	ADJ. TO STUDENT SERVICES	
	3. INFO / DISPLAY GALLERY	W/INFO KIOSK + DISPLAY CASES / WALLS	4	25	100	1	100		
	4. INFORMAL STUDY LOUNGE	W/SOFAS / SOFT SEATING & OUTLETS/WIFI	10	50	500	3	1,500	1 PER LEVEL (BY LOBBY)	
	5. STUDY ROOMS (BREAK-OUT)	TABLE & CHAIRS + OUTLETS/WIFI	4	25	100	6	600	2 PER LEVEL (BY GRAND STAIR)	
	6. TOUCH & GO ZONES	OPEN QUICK STOP COUNTER W/OUTLETS	4	10	40	6	240	2 PER LEV. NEAR DEPT CLASSES	
	7. GRAND STAIR CASE	WITH INTEGRATED TIERED SEATING	20	30	600	1	600		
	8. MAIN ELEVATOR(S)		6	15	90	2	180	+ ELEVATOR SHAFT	
B. AUDITORIUM	1. DXATC AUDITORIUM	TIERED SEATING / DIVIDABLE (X2)	500	10	5,000	1	5,000	POTENTIAL BID ALT./PHASED	
	2. STAGE AREA (BASIC)	RAISED	20	30	600	1	600	"	
	3. AUD. ANTEROOM/VESTIBULE	SOUND LOCK	1	120	120	2	240	"	
	4. PRIVATE CHANGING ROOMS	FOR GUESTS/PERFORMERS	1	120	120	2	240	"	
	5. PRIVATE UNISEX RESTROOM	FOR GUESTS/PERFORMERS	1	80	80	1	80	"	
	6. PROJECTION ROOM		1	120	120	1	120	"	
C. MULTIPURPOSE ROOM	1. MULTIPURPOSE ROOM	FLAT / DIVIDABLE (1/3, 2/3)	100	20	2,000	0	0	SHARED W/ JOBS NOW/STIT	
	2. CHAIR & TABLE STORAGE		1	150	150	0	0	(SEE 14.A.4)	

02 PROGRAM SUPPORT SPACES								"THE PLACE TO BE" LEVEL 1	
FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES	
D. STUDENT SERVICES SUITE	1. DIRECTOR OF STUDENT SERVICES	PRIVATE OFFICE W/ SM. CONF. TABLE	1	225	225	1	225	EXCLUDED FROM 01 ADMIN	
	2. ADVISORS' OFFICES	PRIVATE OFFICE W/ SM. CONF. TABLE	1	160	160	4	640		
	3. REGISTRARS' OFFICES	PRIVATE OFFICE W/ SM. CONF. TABLE	1	160	160	3	480	ADJ. TO WAITING AREA/CASHIER	
	4. FINANCIAL AID OFFICES	PRIVATE OFFICE W/ SM. CONF. TABLE	1	160	160	2	320		
	5. FINANCIAL AID PROC.	PRIVATE OFFICE	1	120	120	1	120		
	6. GROWTH - FINANCIAL AID OFF.	PRIVATE OFFICE	1	120	120	1	120		
	7. STUDENT SERVICES DIRECTOR (GROWTH)	PRIVATE OFFICE W/ SM. CONF. TABLE	1	225	225	1	225	EXCLUDED FROM 01 ADMIN	
	8. RECRUITER OFFICE	PRIVATE OFFICE W/ SM. CONF. TABLE	1	160	160	1	160		
	9. HOST ROOM	W/ SOFT SEATING, FRIDGE, & COUNTER	4	50	200	1	200	ADJ. TO RECRUITER OFFICE	
	20. WAITING AREA	W/ 2 CHECK-IN STATIONS	10	25	250	1	250		
	21. CASHIER'S OFFICE (SECURE)	W/3 TRANS. STATIONS + GLASS SEPERATOR	3	100	300	1	300	ADJ. TO WAITING AREA	
	22. CASHIER'S COUNT ROOM	W/ VAULT & DROP-BOX FROM EXTERIOR	1	120	120	1	120	ADJ. TO WAITING AREA	
	23. S.S. FRONT DESK/RECEPT. (KAMI)	OFFICE AREA	1	120	120	1	120	ADJ. TO WAITING AREA	
	24. GROWTH - S.S. ADMIN ASSISTANT	PRIVATE OFFICE	1	120	120	1	120	FUTURE GROWTH	
	25. S.S. CONFERENCE ROOM	FOR 20 PEOPLE (SHARED W/ ADMIN?)	20	30	600	1	600	ADJ. TO WAITING AREA	
	30. S.S GENERAL STORAGE		1	120	120	1	120		
	31. S.S. FILE ROOM	FIRE-RATED W/ LOCKABLE FILES	1	250	250	1	250		
	32. S.S. PRIVATE RESTROOM	UNISEX	1	80	80	2	160		
	33. S.S WORK AREA	W/ COPY/FAX + SUPPLY STORAGE	6	40	240	1	240		
	34. S.S BREAK AREA		8	25	200	1	200		
	2. CASH WRAP AREA	2 P.O.S.	1	50	50	2	100		
	3. BOOK STORE OFFICE	W/ VIS. CONN. TO RETAIL AREA	2	60	120	1	120		
	4. BOOK STORE STOCK ROOM		1	150	150	1	150		
	G. CAFETERIA	1. CAFETERIA	W/ 2 P.O.S.	48	30	1,440	1	1,440	ADJ. TO OUTDOOR EATING AREA
		2. KITCHEN	W/ SAUTE, EXPO, FRYER (X3), GRILL BROILER, FLAT TOP GRILL, PANTRY (SALADS) SKILLET, CONV. OVEN, MIXER, S.S. PREP TABLES, ETC. + DISHWASHING AREA	1	2000	2,000	1	2,000	ADJ. TO CAFETERIA
3. KITCHEN STORAGE/WALK-INS		PANTRY, WALK-IN COOLER + FREEZER	3	150	450	1	450	ADJ. TO CAFETERIA	
4. SERVICE STATIONS			1	30	30	2	60	W/IN CAFETERIA	
5. MANAGER'S OFFICE		W/ VIEW TO KITCHEN	1	100	100	1	100	ADJ. TO KITCHEN	
6. COFFEE KIOSK		"STARBUCKS"	1	80	80	1	80	ADJ. TO CAFETERIA	
7. STUDENT BREAK AREAS		W/ FRIDGE & MICRO. (FOR PERSONAL ITEMS)	4	30	120	2	240	1/LEVEL (1 BY M.A. PROG.)	
H. EXERCISE / WELLNESS CENTER	1. EXERCISE / FITNESS ROOM	W/ STRENGTH / CARDIO EQUIPMENT	4	80	320	1	320	FOR FACULTY/STAFF ONLY	
	2. QUIET ROOM (LACTATION)		1	200	200	1	200	FOR FAC./STAFF & STUDENTS	
J. STUDENT COPY CENTER	1. COPY CENTER + OFFICE		8	40	320	1	320	ADJ. TO LOBBY	
K. STUDENT LIBRARY/WRITING CENTER	1. CENTRAL LIBRARY/WRITING CENTER	W/COURSE BOOKS + TABLES/SEATING	18	30	540	1	540	ADJ. TO LOBBY	
M. INSTRUCTORS' SUITE	1. INSTRUCTORS' WORK AREAS	1 PER LEVEL	2	50	100	3	300		
	2. INSTRUCTORS' BREAK AREAS	1 PER LEVEL	4	30	120	3	360		
	3. INSTRUCTORS' PRIVATE RESTROOMS	1.PER WING/PER LEVEL - UNISEX	1	80	80	6	480		
PROGRAM SUPPORT SUBTOTAL:							29,115		
EFF. FACTOR: 5.00%							1,456		
PROGRAM SUPPORT TOTAL SF:							30,571 NSF		

04 DRAFTING & DESIGN									"FILLED WITH NORTHERN LIGHT" ANY LEVEL
FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES	
A. CLASSROOM	1. CLASSROOM	LOW-PROFILE RAISED FLOOR SYSTEM	24	60	1,440	1	1,440		
	2. LECTURE AREA	CONFERENCE ROOM STYLE	12	40	480	1	480	COULD BE SHARED W/ IT PROG.	
	3. PIN-UP AREA	LOUNGE STYLE W/ MAX. TACKABLE SURFACE	12	40	480	1	480		
	4. GROWTH - G.I.S. CLASSROOM	LOW-PROFILE RAISED FLOOR SYSTEM	24	60	1,440	1	1,440		
B. COMPUTER LAB	1. COMPUTER LAB		24	40	960	0	0	INCLUDED IN CLASSROOM	
C. WORK/PRINT ROOM	1. WORK / PRINT ROOM		1	300	300	1	300		
D. OFFICE AREA	2. INSTRUCTOR'S OFFICE	W/ SM. CONF. TABLE	1	160	160	2	320	VISUAL CONN. TO CLASS	
	3. ADJUNCT OFFICE (SHARED)		1	60	60	2	120		
	4. GROWTH - G.I.S. OFFICE		1	120	120	1	120		
E. STORAGE	1. STORAGE / FILE ROOM	OPEN SHELVES & LOCKABLE CABINETS	1	80	80	1	80	ADJ. TO PRINT ROOM	
DRAFTING & DESIGN SUBTOTAL:							4,780		
EFF. FACTOR: 5.00%							239		
DRAFTING & DESIGN TOTAL SF:							5,019 NSF		

05 IT PROGRAM									"HIGH TECH I.T. AESTHETIC" ANY LEVEL
FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES	
A. CLASSROOM	1. CLASSROOM		24	30	720	0	0	INCLUDED IN COMP. LAB BELOW	
	2. LECTURE AREA	W/ TABLES FOR TEAR-DOWN	12	40	480	1	480	COULD BE SHARED W/ DRAFTING	
B. COMPUTER LAB	1. COMPUTER LAB	POD STYLE SET-UP, GLASS WALLS	24	40	960	1	960		
C. WORK ROOM	1. SERVER ROOM	2 ROWS OF 4 RACKS EA.	1	180	180	1	180		
D. OFFICES	1. DIRECTOR'S OFFICE	W/SM. CONF. TABLE & COMP. SPACE	1	160	160	1	160	VISUAL CONN. TO LAB	
	2. INSTRUCTOR'S OFFICE		1	120	120	1	120		
	3. ADJUNCT OFFICE (SHARED)		1	60	60	2	120		
E. STORAGE	1. STORAGE / FILE ROOM	OPEN SHELVES & LOCKABLE CABINETS	1	80	80	1	80		
IT PROGRAM SUBTOTAL:							2,100		
EFF. FACTOR: 5.00%							105		
IT PROGRAM TOTAL SF:							2,205 NSF		

06 OFFICE MANAGEMENT									"CUPERTINO" ANY LEVEL - BY MEDICAL PROGRAMS
FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES	
A. CLASSROOMS	1. CLASSROOMS	W/ LAPTOP RACKS + ABILITY TO REC. LECTUR	24	30	720	1	720	COULD BE SHARED W/ MED. PR.	
B. EMPLOYMENT DEVELOPMENT CENTER	1. EMPLOYMENT DEV. CENTER	5 - 8 TECH DESKS + WORK TABLE/PRINTERS	8	50	400	1	400	CONN. TO OFFICES	
C. COMPUTER LAB	1. COMPUTER LAB	W/ PRINTER ALCOVE	24	40	960	1	960		
D. TESTING CENTER	1. TESTING CENTER	GLASS CONNECTION TO LABS	24	40	960	0	0	SHARED W/ OTHER PROG.?	
E. INSTRUCTORS' OFFICES	1. INSTRUCTORS' OFFICES	W/SM. CONF. TABLE & COMP. SPACE	1	160	160	2	320	VISUAL CONN. TO DEV. CENTER	
	2. GROWTH - ASSIST. OFFICE		1	120	120	0	0		
	3. WAITING AREA	WAITING AREA / BUFFER ZONE	6	30	180	1	180		
F. STORAGE	1. STORAGE / FILE ROOM	OPEN SHELVES & LOCKABLE CABINETS	1	120	120	1	120		
IT PROGRAM SUBTOTAL:							2,700		
EFF. FACTOR: 5.00%							135		
IT PROGRAM TOTAL SF:							2,835 NSF		

08 PHARMACY TECH PROGRAM									ADJACENT TO MEDICAL ASSISTING PROGRAM ANY LEVEL
FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES	
A. CLASSROOM	1. CLASSROOM		24	30	720	1	720	ADJ. TO SECURE MOCK PHARM.	
B. MOCK PHARMACY	1. MOCK PHARMACY	W/ 2 DROP-OFF WINDOWS/COUNTERS	10	45	450	1	450	CABS/COUNTERS/MED. BOTTLES	
	2. LAB AREA	2 LAB BAYS W/ SINK & H2O DISP.	10	45	450	1	450		
C. COMPUTER LAB	1. COMPUTER LAB		24	40	960	0	0	SHARED W/MED. ASSIST.	
D. WORK ROOM	1. WORK ROOM		5	50	250	0	0	SHARED W/MED. ASSIST.	
E. OFFICE AREA	1. INSTRUCTOR'S OFFICE		1	160	160	1	160	ADJ. TO MED. PROG.	
F. STORAGE	1. STORAGE / FILE ROOM		1	120	120	1	120	SHARED W/MED. ASSIST.	
PHARMACY TECH. SUBTOTAL:							1,900		
EFF. FACTOR: 5.00%							95		
PHARMACY TECH. TOTAL SF:							1,995 NSF		

07 MEDICAL ASSISTING PROGRAM								"SHARED SIM LAB WITH A.H.A." ANY LEVEL		
FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES		
A. CLASSROOM	1. CLASSROOMS		24	30	720	2	1,440			
	2. GROWTH - CLASSROOM(S)		24	30	720	1	720	(FOR LPN / CNA PROGRAMS)		
B. MOCK MEDICAL OFFICE AREA	1. WAITING AREA	W/ BACK-PACK CUBBIES FOR 48 STUDENTS	6	30	180	1	180	ADJ. TO M.A. OFFICES		
	2. OPEN LAB AREA	W/SINK	6	100	600	2	1,200	ADJ. TO M.A. WAITING AREA (1 for MA & 1 for LPN/CNA)		
	3. PHLEBOTOMY ROOM	WITH CHAIR FOR 1	1	100	100	1	100			
	4. EXAM ROOM	WITH EXAM TABLE FOR 1	1	100	100	1	100			
	5. SURGICAL SUITE	WITH BED FOR 1	1	225	225	1	225			
	6. X-RAY ROOM	WITH TABLE FOR 1	1	100	100	1	100			
	7. LAB PREP ROOM	W/ COUNTER & CABS (+AUTOCLAVE)	1	225	225	1	225			
	8. LAUNDRY ROOM	W/ HIGH CAPACITY RES. EQUIP.	1	120	120	1	120	INCL AREA FOR LINEN CART		
	9. HOSPITAL TRAINING ROOM	W/ 6 BEDS/ZONES	6	160	960	2	1,920	ADJ. TO SIM. LAB (SEE A.H.A.) (1 for MA & 1 for LPN/CNA)		
	10. TRAINING RESTROOM	ADA ACCESSIBLE W/ SPECIMEN PASS-THRU	1	80	80	1	80			
	11. TRAINING RESTROOM W/ SHOWER	ADA ACCESSIBLE W/ SPECIMEN PASS-THRU	1	120	120	1	120	(FOR LPN / CNA PROGRAMS)		
	12. MOCK NURSES STATION		4	60	240	1	240	(FOR LPN / CNA PROGRAMS)		
	13. TRAINING ROOM W/ SIMS.	W/SIM. MANNEQUIN & HOSP. BEDS	4	40	160	2	320	ADJ. TO CONTROL ROOM		
	14. CONTROL ROOM FOR SIMS		2	60	120	1	120	ADJ. TO SIM. ROOMS		
C. COMPUTER LAB	1. COMPUTER LAB		24	40	960	1	960			
D. WORK ROOM	1. WORK ROOM	W/ COPY/FAX	2	50	100	1	100			
E. OFFICE AREA	1. INSTRUCTOR'S OFFICE	W/SM. CONF. TABLE	1	160	160	1	160	ADJ. TO LABS		
	2. INSTRUCTORS' OFFICES		1	120	120	3	360			
	3. OPEN ADJUNCT OFFICE AREA	W/ 4 CUBES FOR PART TIME & RECEPT.	1	64	64	4	256	ADJ. TO M.A. WAITING AREA		
	4. M.A. CONFERENCE ROOM		6	30	180	1	180	SHARE W/ PHARM.		
F. STORAGE	1. STORAGE / FILE ROOM	OPEN SHELVES & LOCKABLE CABINETS	1	150	150	2	300	+ OUTLETS FOR EKG		
G. RESTROOMS	1. RESTROOMS (DEDICATED FOR M.A. & PHARMACY)				240	0	0	INCLUDED IN 30.J.1.		
	2. SHOWERS (DEDICATED FOR M.A. & PHARMACY)				240	0	0	INCLUDED IN 30.J.2.		
	3. LOCKERS (DEDICATED FOR M.A. & PHARMACY)				240	0	0	INCLUDED IN 30.J.2.		
H. BREAK/STUDY ROOM	1. BREAK ROOM (DEDICATED FOR M.A. & PHARMACY)				180	0	0	INCLUDED IN 02.G.4.		
	2. STUDY ROOM (DEDICATED FOR M.A. & PHARMACY)				150	0	0	INCLUDED IN 02.A.5.		
							MED. ASSIST. SUBTOTAL:	9,526		
							EFF. FACTOR:	5.00%	476	
							MED. ASSIST. TOTAL SF:	10,002	NSF	

10 DENTAL OFFICE & DENTAL ASSISTANT PROGRAMS								NEAR MEDICAL ASSISTING PROGRAM		
FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES		
A. CLASSROOM	1. CLASSROOM	W/ IVC CAPABILITY	24	30	720	1	720			
	2. GROWTH - CLASSROOM	W/ IVC CAPABILITY	24	30	720	0	0			
B. MOCK DENTAL LAB	1. DENTAL LAB	W/ 6 DENTAL OP STATIONS (3 SINKS)	6	150	900	1	900	W/ LAB-GRADE FLOOR FINISH		
	2. LAB PREP ROOM	W/COUNTER & SINK	1	120	120	1	120	W/ LAB-GRADE FLOOR FINISH		
	3. LAB STERILIZATION ROOM	W/COUNTER & SINK	1	120	120	1	120	W/ LAB-GRADE FLOOR FINISH		
	4. X-RAY ROOM		1	100	100	1	100	W/ LAB-GRADE FLOOR FINISH		
C. MOCK DENTAL OFFICE	1. FRONT OFFICE - RECEPT.	W/ RECEPTION DESK/FILES	2	80	160	1	160			
	2. WAITING AREA	W/ RECEPTION DESK/FILES	6	35	210	1	210			
	3. CHARTING AREA	W/DESK	2	40	80	1	80	ADJ. TO FRONT OFFICE - RECEPT.		
D. OFFICE AREA	1. INSTRUCTOR'S OFFICE		1	160	160	1	160			
E. STORAGE	1. STORAGE / FILE ROOM	OPEN SHELVES & LOCKABLE CABINETS	1	120	120	1	120			
							MANUF. OPS. SUBTOTAL:	2,690		
							EFF. FACTOR:	5.00%	135	
							DENTAL PROGRAMS TOTAL SF:	2,825	NSF	

12 CATAPULT										
"THE COMFORTABLE & WELCOMING PLACE TO BRIDGE BETWEEN HIGH SCHOOL AND COLLEGE" LEVEL ONE - ADJACENT TO BUILDING COMMON AREAS										
FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES		
A. CLASSROOM	1. CLASSROOM	DIVIDABLE INTO 15P LECTURE/LAB	24	35	840	1	840	FRONT-FACING W/PRINTER		
B. COMPUTER LAB/TEST CENTER	1. COMPUTER LAB / TEST CENTER		24	40	960	0	0	SHARED (INCLUDED IN 02.E.1-4)		
C. RECEPTION AREA	1. RECEPTION AREA	W/ AREA FOR BROCHURES	8	35	280	1	280	ADJ. TO BLDG. STUDENT LOUNGE		
D. OFFICE AREA	1. INSTRUCTOR'S OFFICE	W/ SM. CONF. TABLE	1	160	160	1	160			
	2. OPEN OFFICE AREA	FOR 2 FLEX WORK STATIONS	1	60	60	2	120			
	3. CONFERENCE ROOM	W/ IVC CAPABILITY	12	35	420	0	0	SHARE W/OTHER PROGRAMS		
E. STORAGE	1. STORAGE / FILE ROOM	OPEN SHELVES & LOCKABLE CABINETS	1	120	120	1	120	ADJ. TO OFFICES		
CATAPULT SUBTOTAL:							1,520			
EFF. FACTOR:							5.00%	76		
CATAPULT TOTAL SF:							1,596	NSF		

13 CUSTOM FIT										
"CUSTOMIZED TRAINING FOR BUSINESSES" LEVEL ONE										
FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES		
A. CLASSROOM	1. CLASSROOM (X-LARGE)	DIV. INTO TWO 30p SPACES W/ FLEX. SEATING	48	30	1,440	0	0	INDUSTRIAL / DURABLE FINISHES		
	2. GROWTH - MULTIPURPOSE ROOM	DIV. INTO 3 SPACES W/ FLEX. SEATING (IND.)	100	25	2,500	0	0	SHARED W/ JOBS NOW/STIT		
	3. PREFUNCTION AREA		48	5	240	1	240			
B. PREP ROOM	1. PREP ROOM (FOR CATERING)		1	150	150	1	150			
C. OFFICE AREA	1. INSTRUCTOR'S OFFICE		1	225	225	0	0	INCL. IN ADMIN (SEE 01.A.9)		
	2. ASSISTANT'S OFFICE		1	120	120	0	0	INCL. IN ADMIN (SEE 01.A.10)		
	3. GROWTH - OFFICE		1	120	120	0	0			
D. STORAGE	1. CHAIR & TABLE STORAGE		1	120	120	0	0			
CUSTOM FIT SUBTOTAL:							390			
EFF. FACTOR:							5.00%	20		
CUSTOM FIT TOTAL SF:							410	NSF		
COMBINED WITH JOBS NOW/STIT>										

14 JOBS NOW / STIT										
"INDUSTRIAL TECHNOLOGY / MANAGEMENT" LEVEL ONE										
FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES		
A. CLASSROOM	1. CLASSROOM (X-LARGE)	DIV. INTO 2 30p SPACES W/ FLEX. SEATING	48	30	1,440	1	1,440	INDUSTRIAL / DURABLE FINISHES		
	2. GROWTH - CLASSROOM (LARGE)		24	30	720	0	0	SHARED W/ DIESEL TECH.		
	3. CLASSROOMS (MEDIUM)	BREAKOUT ROOMS	18	30	540	2	1,080	NEAR X-LARGE CLASSROOM		
	4. MULTIPURPOSE ROOM (EXT. ACCESS)	DIV. INTO 3 SPACES W/ FLEX. SEATING (IND.)	100	20	2,000	1	2,000	NEAR X-LG CLASS & AUDITORIUM		
B. OFFICE AREA	1. INSTRUCTOR'S OFFICE		1	160	160	0	0	INCLUDED IN ADMIN (SEE 01.A.4)		
C. STORAGE	1. STORAGE (SUPPLY & EQUIP.)	OPEN SHELVES & LOCKABLE CABINETS	1	100	100	6	600	ADJ. TO MULTIPURPOSE ROOM		
	2. STORAGE (TURN-OUT GEAR/CACHE)	W/ DIRECT EXTERIOR ACCESS	1	200	200	0	0	PROVIDE IN E.T.C. (NOT INCL.)		
	3. CHAIR & TABLE STORAGE	W/ DIRECT EXTERIOR ACCESS	1	200	200	1	200			
JOBS NOW / STIT SUBTOTAL:							5,320			
EFF. FACTOR:							5.00%	266		
JOBS NOW / STIT TOTAL SF:							5,586	NSF		

16 CULINARY ARTS PROGRAM										
"RESTAURANT TECHNOLOGY / MANAGEMENT" ADJACENT TO CAFETERIA - ANY LEVEL										
FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES		
A. CLASSROOM	1. DEMONSTRATION CLASSROOM		24	40	960	1	960			
	2. CLASSROOM(S)		24	30	720	0	0	SHARE W/ OTHER PROGRAMS		
B. COMPUTER LAB	1. COMPUTER LAB		24	40	960	0	0	SHARE W/ OTHER PROGRAMS		
C. KITCHEN	1. KITCHEN & SUPPORT SPACES		24	85	2,040	0	0	(SEE 02.G.1 & 2)		
D. OFFICE AREA	1. INSTRUCTOR'S OFFICE		1	120	120	1	120			
E. STORAGE	1. STORAGE / FILE ROOM	OPEN SHELVES & LOCKABLE CABINETS	1	120	120	1	120	ADJ. TO DEMO. CLASS		
CULINARY ARTS SUBTOTAL:							1,200			
EFF. FACTOR:							5.00%	60		
CULINARY ARTS TOTAL SF:							1,260	NSF		

19 GRAPHIC ARTS PROGRAM

FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES
A. CLASSROOM	1. CLASSROOM		24	30	720	1	720	
B. COMPUTER LAB	1. COMPUTER LAB		24	40	960	0	0	SHARED W/ OTHER PROG.
C. WORK SHOP	1. WORK ROOM		6	50	300	1	300	
D. OFFICE AREA	1. INSTRUCTOR'S OFFICE		1	160	160	1	160	
E. STORAGE	1. STORAGE / FILE ROOM	OPEN SHELVES & LOCKABLE CABINETS	1	120	120	1	120	
							GRAPHIC ARTS SUBTOTAL:	1,300
							EFF. FACTOR: 5.00%	65
							GRAPHIC ARTS TOTAL SF:	1,365 NSF

20 FLORAL & LANDSCAPE

FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES
A. CLASSROOM	1. CLASSROOM	W/ SINKS	24	40	960	1	960	DURABLE/WET AREAS
	2. GROWTH - CLASSROOM (DIVIDABLE W/ CLASSROOM ABOVE)		24	30	720	1	720	
B. COMPUTER LAB	1. COMPUTER LAB		24	40	960	0	0	SHARED W/ OTHER PROG.
C. WORK SHOP	1. WORK ROOM		4	50	200	1	200	
	2. WALK-IN COOLER / DISPLAY		1	120	120	1	120	
	3. RETAIL SALES AREA		6	40	240	1	240	
D. OFFICE AREA	1. INSTRUCTOR'S OFFICE		1	160	160	1	160	
E. STORAGE	1. STORAGE / FILE ROOM	OPEN SHELVES & LOCKABLE CABINETS	1	120	120	1	120	
							MANUF. OPS. SUBTOTAL:	2,520
							EFF. FACTOR: 5.00%	126
							TOTAL SF:	2,646 NSF

30 BUILDING SUPPORT SPACE

FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES
A. MECHANICAL ROOMS	1. MECHANICAL ROOM: DRY				4,698	1	4,698	INCL. CENTRAL AIR COMP.
	2. MECHANICAL ROOM: WET				2,349	1	2,349	
B. ELECTRICAL ROOMS	1. MAIN ELECTRICAL ROOM				587	1	587	
	2. INTERMEDIATE ELECTRICAL ROOM	1 PER LEVEL			150	3	450	
C. TELE/COMM ROOMS	1. MAIN IT / SERVER ROOM				500	1	500	
	2. INTERMEDIATE TELE/COMM ROOM	1 PER LEVEL			150	3	450	
D. GENERAL BUILDING STORAGE	1. GENERAL STORAGE ROOM				500	1	500	
	2. ATTIC STOCK ROOM				500	1	500	
	3. EXTERIOR MAINTENANCE EQUIPMENT				400	1	400	
E. FIRE RISER ROOM	1. FIRE RISER				100	1	100	
F. RECYCLING ROOM	1. RECYCLING ROOM				200	1	200	
G. FREIGHT ELEVATOR	1. FREIGHT ELEVATOR				120	1	120	+ ELEVATOR SHAFT
H. ELEVATOR CONTROL ROOM	1. ELEVATOR CONTROL ROOM	1 PER ELEVATOR			100	3	300	
J. GENERAL RESTROOMS	1. RESTROOMS (MEN & WOMEN)	1 PER WING PER LEVEL			700	6	4,200	
	2. GENERAL BLDG. SHOWER / LOCKER ROOM	SEPARATE FROM DIESEL TECH REQ.			500	1	500	ADJ. TO MED. PROG. /NEAR LOBBY
	3. MOTHERS' ROOM (DFCM REQ.)	WITH SOFT SEATING			100	0	0	SEE 02.H.2
K. FACILITY MANAGER OFFICE	1. MANGER'S OFFICE	W/ PLAN STORAGE & SM. TABLE	1	180	180	1	180	ADJ. TO BLDG STORAGE
							BUILDING SUPPORT SUBTOTAL:	16,034
							EFF. FACTOR: 5.00%	802
							BUILDING SUPPORT TOTAL SF:	16,836 NSF

Building Planning >> WEST WING
Department Space Summaries

BY DEPARTMENT

03 DIESEL TECHNOLOGY

FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES
A. CLASSROOMS	1. CLASSROOMS	COULD BE SHARED WITH AUTO	24	30	720	2	1,440	COULD BE SHARED WITH AUTO
B. COMPUTER LAB	1. COMPUTER LAB	COULD BE SHARED WITH AUTO	24	40	960	1	960	COULD BE SHARED WITH AUTO
C. WORK SHOP	1. WELDING SHOP	COULD BE SHARED WITH AUTO	1	700	700	0	0	SHARED W/WELDING PROG.
	2. TOOL ROOM	OPEN COUNTER INTO BAYS	1	700	700	1	700	COULD BE SHARED WITH AUTO
D. HIGH BAY	1. HIGH BAY	30'x50' (2 VEHICLES) + STON CRANE THRU CEP	2	700	1,400	4	5,600	2 EA: CHASSIS, ENG., TRANS, REEF.
	2. PULL-THRU (FULL TRUCK+TRAILER)	W/ PIT (WELL-UT & COVERED)	1	2000	2,000	0	0	
E. OFFICE AREA	1. DIRECTOR'S OFFICE	W/ SM. CONF. TABLE	1	160	160	1	160	
	2. INSTRUCTORS' OFFICES		1	120	120	2	240	
	3. INSTRUCTOR'S SHARED OFFICE	OPEN OFFICE AREA	1	60	60	4	240	
	4. SHOP CONFERENCE ROOM	SHARED W/ SHOP PROGRAMS	12	30	360	1	360	ADJ. TO OFFICES
F. STORAGE	1. STORAGE - SHOPS	2 PER BAY (@ 15'x20')	2	300	600	4	2,400	
	2. STORAGE / FILE ROOM	OPEN SHELVES & LOCKABLE CABINETS	1	120	120	1	120	ADJ. TO OFFICES
G. SHOP RESTROOMS	1. SHOP SHOWERS		6	60	360	1	360	ADJACENT TO RESTROOMS
	2. SHOP LOCKER ROOM		48	5	240	1	240	ADJACENT TO RESTROOMS
H. INSTRUCTORS' AREA	1. INSTRUCTORS' WORK AREA		8	30	240	0	0	SEE 02.M.1
	2. INSTRUCTORS' LOUNGE		8	30	240	0	0	SEE 02.M.2

DIESEL TECH SUBTOTAL: 12,820

EFF. FACTOR: 5.00%

641

DIESEL TECH TOTAL SF: 13,461 NSF

09 APPRENTICE PROGRAMS / HVAC + BASIC CONSTRUCTION

FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES
A. CLASSROOM	1. CLASSROOM	W/ COUNTER/CABS, TROPHY CASE, & IVC	24	30	720	4	2,880	HEAVY DUTY CARPET
	2. GROWTH - CLASSROOM		24	30	720	0	0	HEAVY DUTY CARPET
B. SKILLS TRAINING LAB	1. SKILLS TRAINING LAB/SHOP/PREP AREA	MOCK-UP AREAS + OPEN AREA W/TABLES PROVIDE COMP. AIR, WATER, GAS W/ EPOXY CONCRETE FLOOR FLR. DRAINS & SHARED DOCK LEVELOR + EXT. OVERHEAD DOOR	24	45	1,080	4	4,320	PROPANE/REACH FORK LIFTS EMERG. EYE WASH/SHOWER
C. WORK SHOP	1. TOOL ROOM	W/ OA WELDERS	1	300	300	0	0	SHARED W/DIESEL/OpX
D. OFFICE AREA	1. INSTRUCTOR'S OFFICE	W/ SM. CONF. TABLE	1	160	160	4	640	
	2. GROWTH - INSTRUCTOR'S OFFICE	W/ SM. CONF. TABLE	1	160	160	0	0	
	3. OPEN OFFICE AREA (ADJUNCT)	W/LOCKABLE UPPER CABS	1	60	60	6	360	ADJ. TO WAITING AREA
	4. WAITING AREA	W/DISPLAYS & BROCHURES	8	35	280	1	280	ADJ. TO WAITING AREA
	5. CONFERENCE ROOM		18	30	540	1	540	COULD BE SHARED
	6. WORK AREA	W/COPY & FAX	1	120	120	1	120	ADJ. TO WAITING AREA
	7. STUDENT BREAK ROOM	W/FRIDGE & MICROWAVE	6	30	180	0	0	INCLUDED IN 02.G.4
E. STORAGE	8. STUDENT STUDY AREA		6	25	150	0	0	INCLUDED IN 02.A.5
	1. MATERIALS STORAGE		1	120	120	0	0	SHARED W. OpX
	2. LAB/SHOP STORAGE ROOM	1 PER DISCIPLINE - VENTILATED	1	120	120	4	480	ADJ. TO LAB/SHOP
	3. GROWTH - LAB/SHOP STORAGE ROOM		1	120	120	0	0	ADJ. TO LAB/SHOP

APPRENTICE PROG. SUBTOTAL: 9,620

EFF. FACTOR: 5.00%

481

APPRENTICE PROG. TOTAL SF: 10,101 NSF

11 OpX PROGRAM (MAN U, IFM, LEAN SIX SIGMA, CNC)

"THE CENTER FOR OPERATIONAL EXCELLENCE." | LEVEL ONE, NEAR HVAC/APP. & DIESEL TECH.

FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES
A. CLASSROOM	1. CLASSROOM / LAB	FLEXIBLE SEATING	24	30	720	2	1,440	ACCESS TO RUNWAY (POT. GUNS)
	2. GROWTH - FLEX CLASSROOM / LAB	FLEXIBLE SEATING	24	30	720	0	0	
B. LAB	1. TESTING LAB		1	250	250	0	0	SHARED (SEE 02.E.1)
	2. ELECTRICAL/IT LAB	W/ STORAGE AREA	1	250	250	1	250	NEAR OFFICES
C. WORK SHOP	1. MAIN SHOP AREA	W/OH DOOR & SECURITY (CARD READERS) SPACE FOR: CNC SHOP, 4 SURFACE GRINDERS 2 EDM, LG WOOD ROUTER, 2 OPT. COMP., PLASMA CUTTING TABLE, 5 VERT. CNC MILLS 6 MAN. MILLS, 6 MAN. LATHES, ICE MACHINE	1	5000	5,000	1	5,000	HEAVY DUTY EPOXY COATED FLR. FLOOR DRAINS FORKLIFT ACCESS
	2. TOOL ROOM	W/ OA WELDERS	1	300	300	0	0	SHARED W/DIESEL/OpX
D. OFFICE AREA	1. INSTRUCTOR'S OFFICE	W/ SM. CONF. TABLE	1	160	160	1	160	
	2. INSTRUCTORS' OFFICES		1	120	120	2	240	
	3. GROWTH - INSTRUCTORS' OFFICES		1	120	120	0	0	
	4. OPEN OFFICE AREA (ADJUNCT)		1	60	60	4	240	
E. STORAGE	1. SPECIALTY EQUIP. STORAGE ROOMS	4 PER CLASSROOM / LAB	4	200	800	2	1,600	SECURE/CARD READER
	2. GROWTH - EQUIPMENT STORAGE ROOMS	4 PER FLEX CLASSROOM / LAB	4	200	800	0	0	SECURE/CARD READER
	3. MATERIALS STORAGE		1	240	240	1	240	SHARED WITH HVAC/APP.
F. STUDENT AREAS	1. SMALL EQUIP. VENDING AREA		1	5	5	3	15	ADJ. TO SHOP or BOOKSTORE?
	2. SHOWERS		6	50	300	0	0	SHARED W/ D.T. (SEE 03.G.1&2)
	3. LOCKER ROOM		24	5	120	0	0	SHARED W/ D.T. (SEE 03.G.1&2)

MANUF. OPS. SUBTOTAL: 9,185

EFF. FACTOR: 5.00%

459

OpX PROGRAM TOTAL SF: 9,644 NSF

17 WELDING PROGRAM								
FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES
A. CLASSROOM	1. CLASSROOM		24	30	720	1	720	
B. COMPUTER LAB	1. COMPUTER LAB		24	40	960	0	0	
C. WORK SHOP	1. WORK ROOM		24	100	2,400	1	2,400	
D. OFFICE AREA	1. INSTRUCTOR'S OFFICE		1	160	160	1	160	
E. STORAGE	1. STORAGE / FILE ROOM	OPEN SHELVES & LOCKABLE CABINETS	1	120	120	1	120	
WELDING PROGRAM SUBTOTAL:							3,400	
EFF. FACTOR: 5.00%							170	
WELDING PROGRAM TOTAL SF:							3,570 NSF	

18 AUTOMOTIVE PROGRAM & AUTO BODY PROGRAM								
FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES
A. CLASSROOM	1. CLASSROOM		24	30	720	0	0	SHARED WITH DIESEL TECH
B. COMPUTER LAB	1. COMPUTER LAB		24	40	960	0	0	SHARED WITH DIESEL TECH
C. HIGH-BAY SHOP	1. HIGH-BAY SHOP FOR 20 CARS		20	250	5,000	1	5,000	
D. WORK SHOP	1. WORK ROOM		24	50	1,200	0	0	SHARED WITH DIESEL TECH
	2. PAINT BAY		1	600	600	1	600	
E. OFFICE AREA	1. INSTRUCTOR'S OFFICE		1	160	160	1	160	
F. STORAGE	1. STORAGE / FILE ROOM	OPEN SHELVES & LOCKABLE CABINETS	1	120	120	1	120	
AUTOMOTIVE PROG. SUBTOTAL:							5,880	
EFF. FACTOR: 5.00%							294	
AUTOMOTIVE PROG. TOTAL SF:							6,174 NSF	

30 BUILDING SUPPORT SPACE								
FUNCTION AREA	SPACE NAME	DESCRIPTION	OCCUPANCY	SF/OCC.	NSF	QUANTITY	NASF	NOTES
A. MECHANICAL ROOMS	1. MECHANICAL ROOM: DRY				2,577	1	2,577	INCL. CENTRAL AIR COMP.
	2. MECHANICAL ROOM: WET				1,289	1	1,289	
B. ELECTRICAL ROOMS	1. MAIN ELECTRICAL ROOM				322	1	322	
	2. INTERMEDIATE ELECTRICAL ROOM	1 PER LEVEL			150	1	150	
C. TELE/COMM ROOMS	1. MAIN IT / SERVER ROOM				150	1	150	
	2. INTERMEDIATE TELE/COMM ROOM	1 PER LEVEL			150	1	150	
D. GENERAL BUILDING STORAGE	1. GENERAL STORAGE ROOM				200	1	200	
	2. ATTIC STOCK ROOM				100	1	100	
	3. EXTERIOR MAINTENANCE EQUIPMENT				100	1	100	
E. FIRE RISER ROOM	1. FIRE RISER				60	1	60	
F. RECYCLING ROOM	1. RECYCLING ROOM				50	1	50	
G. FREIGHT ELEVATOR	1. FREIGHT ELEVATOR				120	0	0	+ ELEVATOR SHAFT
H. ELEVATOR CONTROL ROOM	1. ELEVATOR CONTROL ROOM	1 PER ELEVATOR			100	1	100	
J. GENERAL RESTROOMS	1. RESTROOMS (MEN & WOMEN)	1 PER WING PER LEVEL			500	1	500	
	2. GENERAL BLDG. SHOWER / LOCKER ROOM	SEPARATE FROM DIESEL TECH REQ.			500	0	0	ADJ. TO MED. PROG. / NEAR LOBBY
	3. MOTHERS' ROOM (DFCM REQ.)	WITH SOFT SEATING			100	0	0	SEE 02.H.2
K. FACILITY MANAGER OFFICE	1. MANGER'S OFFICE	W/ PLAN STORAGE & SM. TABLE	1	180	180	0	0	LOCATED IN MAIN BLDG
BUILDING SUPPORT SUBTOTAL:							5,748	
EFF. FACTOR: 5.00%							287	
BUILDING SUPPORT TOTAL SF:							6,035 NSF	

Building Planning >>
Adjacency & Stacking Diagram

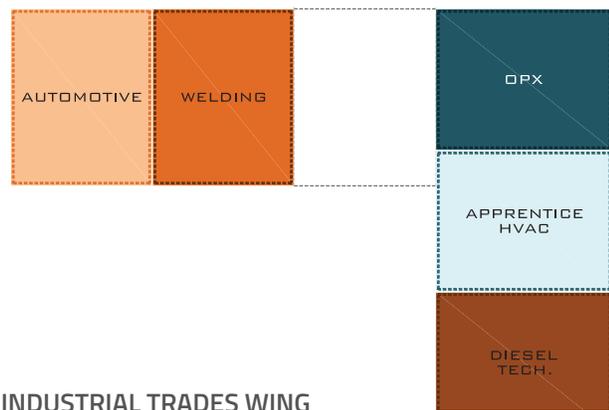
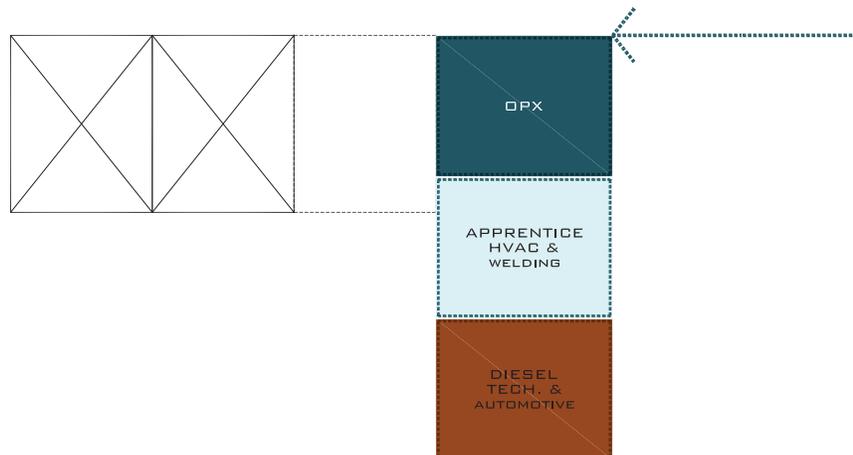
ADJACENCIES

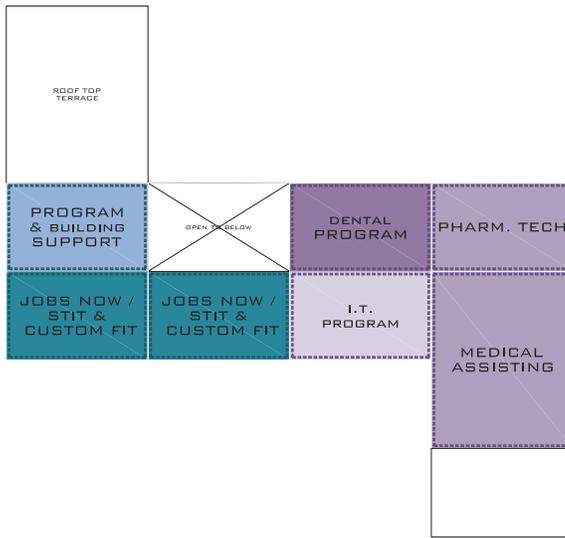
Important adjacencies exist within each department and the spaces that comprise them, but also between departments and programs as a whole.

The initial test-fit floor plan has been organized based on major adjacencies existing between the Industrial Trades Wing, including OPx, Apprentice & HVAC, Diesel Technology, and Automotive. These have been grouped together in the west wing of the New Permanent Campus Building.

Important adjacencies in the Professional Trades Wing include physical proximities between Departments, to Outdoors Spaces, and to centralized gathering areas including the Lobby and Cafeteria. Student services is located visually and physically adjacent to the Main Entry and Lobby space. CATAPULT and Administrative services are located with strong visual connections to the Main Entry, and immediate adjacencies between the two departments. Classrooms and resources are shared between departments making connections important between the Dental program, Pharmacy Technician program, and Medical Assisting program; as well as between Jobs Now/STIT and Custom fit.

Natural partnerships occur generally between the Culinary Arts program and Kitchen/Cafeteria, as well as between the Floral and Landscape program and the Jobs Now/STIT program.



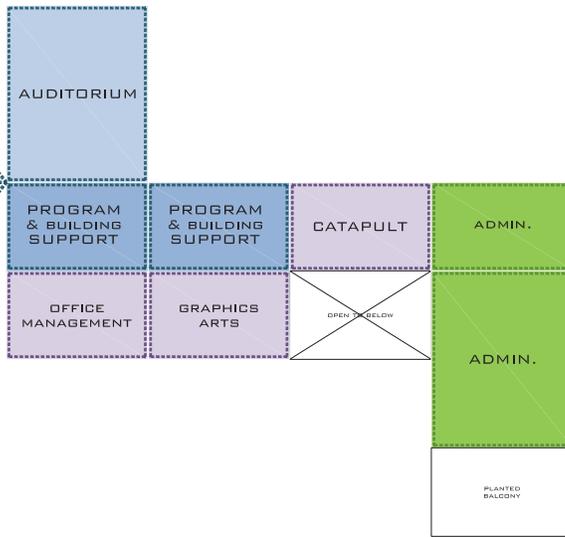


STACKING DIAGRAM

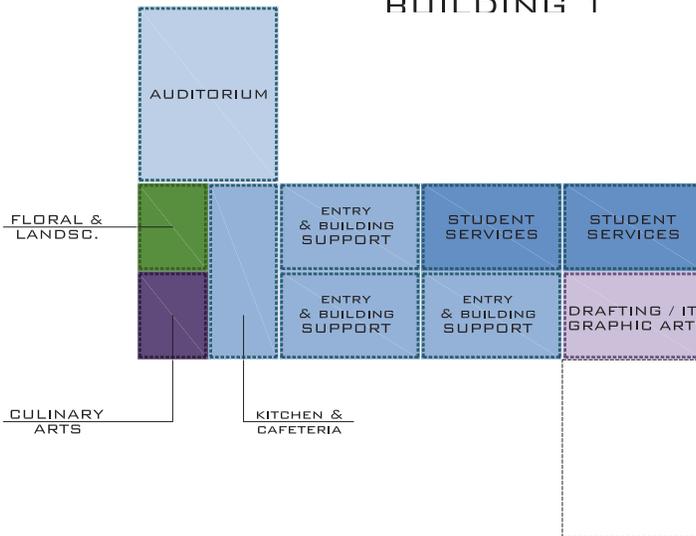
The first level of the proposed initial test-fit floor plan holds the majority of public/service functions that should be immediately visible/accessible to students/visitors. These include Student Services, the Auditorium, Main Atrium/Lobby, and Kitchen/Cafeteria.

Stacked above the first level, immediately accessible physically and visually to the atrium/lobby are the CATAPULT program and the Administration. Several smaller departments share level two, taking advantage of opportunities for framed views and natural daylighting.

Level three features the Medical Assisting, Dental Office and Dental Assisting, and the Pharmacy Technician programs as a majority of the third floor programmed space. Other programs that take advantage of the views and outdoor rooftop opportunities include Jobs Now/STIT, Custom Fit, and potentially elements of the Floral and Landscape program.

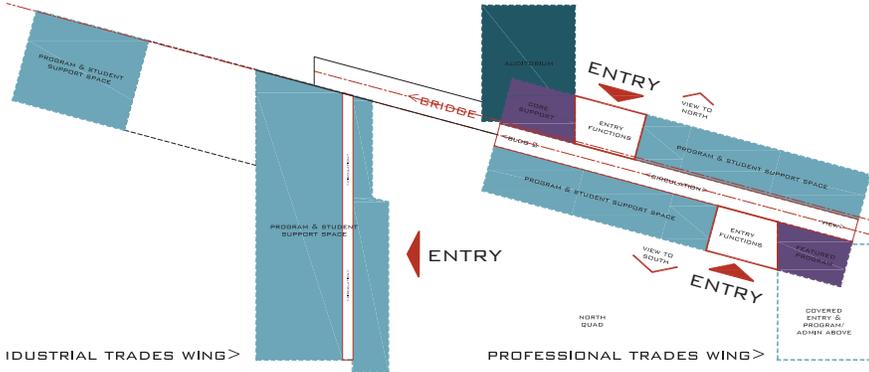


BUILDING 1



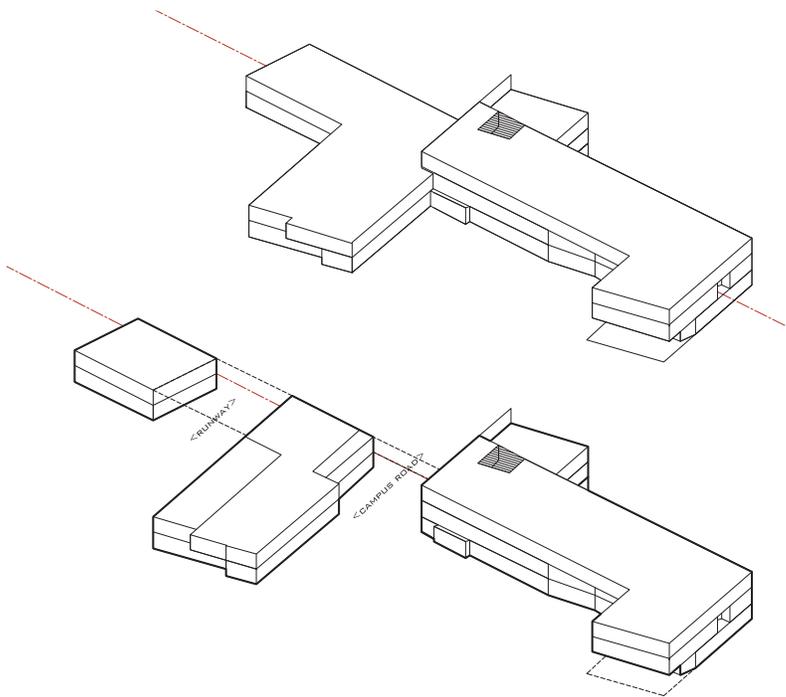
PROFESSIONAL TRADES WING

<< Programming Requirements
Concept

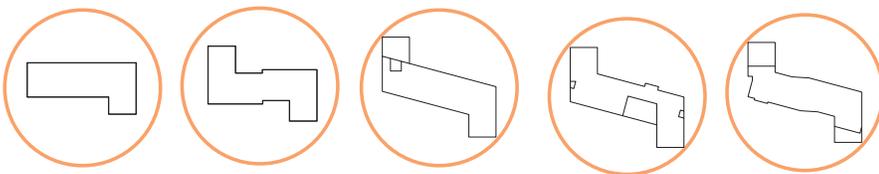


CONCEPT

The conceptual plan organization for the program aligns with the optimal siting strategy discussed in detail in Section 03: Solar orientation, maximizing views, and taking advantage of the unique existing assets of the site (existing runways and taxi-ways), while creating inviting plazas welcoming occupants coming from parking lots on both the north and south sides of the building, are key priorities for the New Permanent Campus Building. The Professional Trades Wing features a central, double-loaded concourse that runs generally east to west with featured programs at each end – on all three levels. The main entries on the south and north, provide opportunities to connect to plazas, creating meaningful indoor/outdoor relationships on both sides of the building. The north side of the building, and the related entry, will serve as the ceremonial gateway to the new DXATC campus. The south side of the building, and the related entry, will serve as the day-to-day entry for the building. The south entry will be connected to the central campus open space via a quad, and thus to the renovated classroom building and existing parking lot to the south – as well as future buildings and parking lots. Covered areas at the exterior of each entry should be provided to protect occupants from the intense sun.



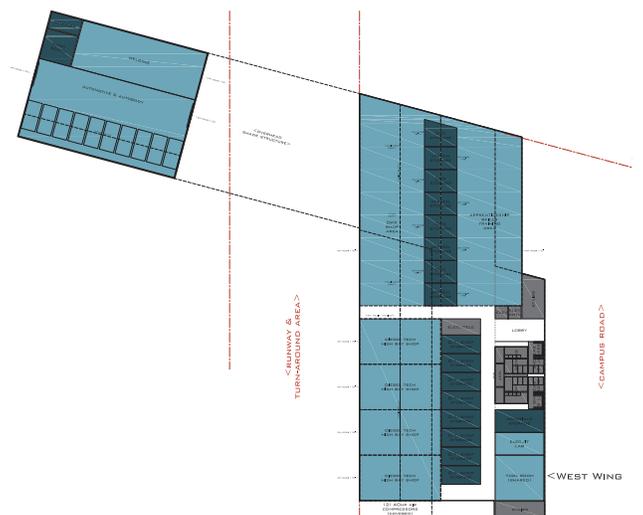
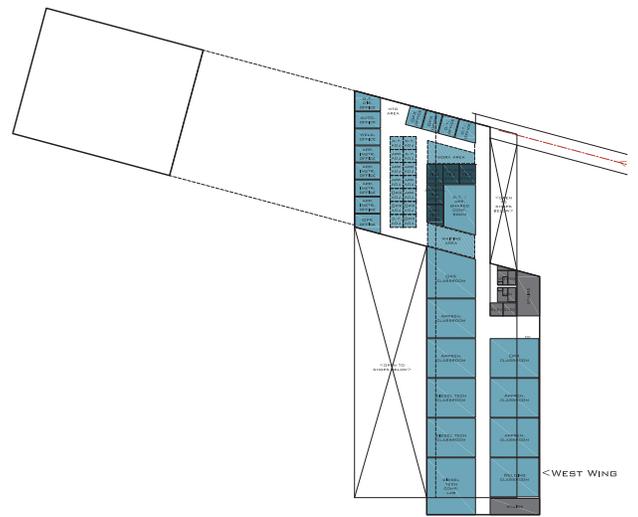
A sky bridge continues the central concourse circulation over the central campus road, connecting the Professional Trades wing to the Industrial Trades wing. In contrast, the organizational strategy for the Industrial Trades Wing features a double-loaded corridor that is aligned with the adjacent runway, generally running north to south. The Industrial Trades Wing should also feature an entry/access point on the east side of the building, connecting the shops and classrooms to the streetscape along the central campus road, and create and exterior connect from the west wing to the east wing via the quad (in addition to the sky bridge).



Programming Requirements >>
Test Fit Floor Plan

INDUSTRIAL TRADES WING > TEST FIT FLOOR PLAN

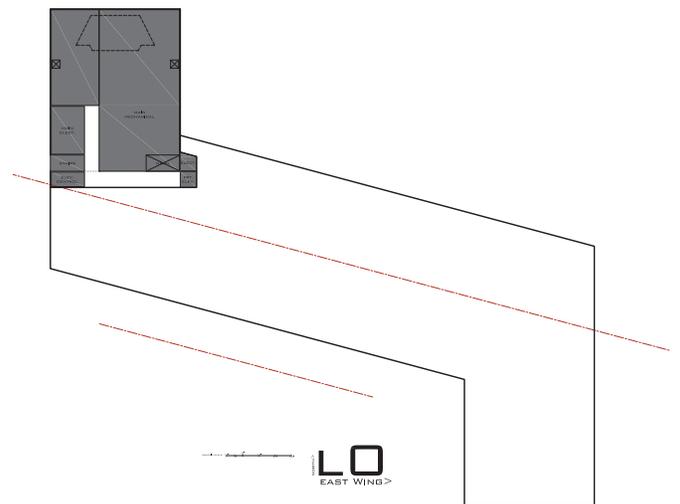
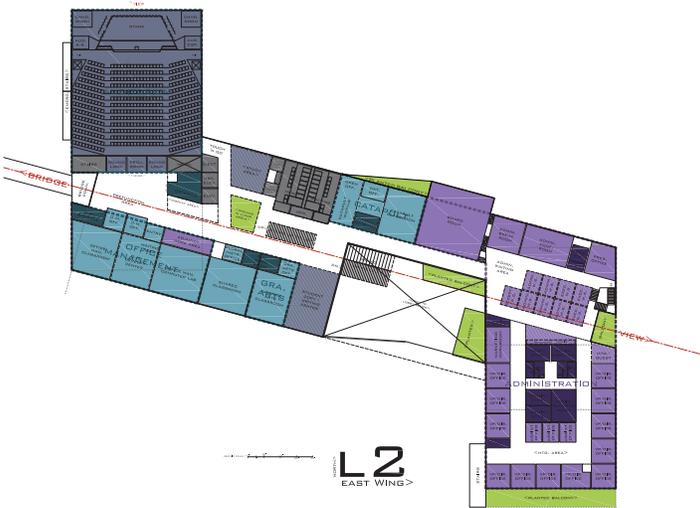
The Industrial Trades Wing is organized around a central, double-loaded corridor that runs parallel to the existing runway and taxi-way on both levels of the building. The main entry, stairways, and common spaces/building support spaces should all be directly connected to this main corridor. All shops should be located on level 1 for ease of access of large/heavy objects and equipment. A centrally located spine of storage and shop support spaces should be aligned with the corridor. All classrooms and offices should be located on level 2 to provide greater access to views of the surrounding landscapes, and allow for a common space-type zoning strategy. Classrooms should be afforded visual access to high-bay shops where possible. Acoustic separation of the classrooms and the offices from the shops will be imperative for the Design Team to detail properly. On level 2, the offices should be located in a shared office suite common to all Industrial Trades programs to provide efficiencies and shared resources where possible (waiting area, open office area, conference rooms, work room, storage, etc). An alternate strategy, with offices located next to program-specific classrooms and shops, was discussed, but deemed less preferable.

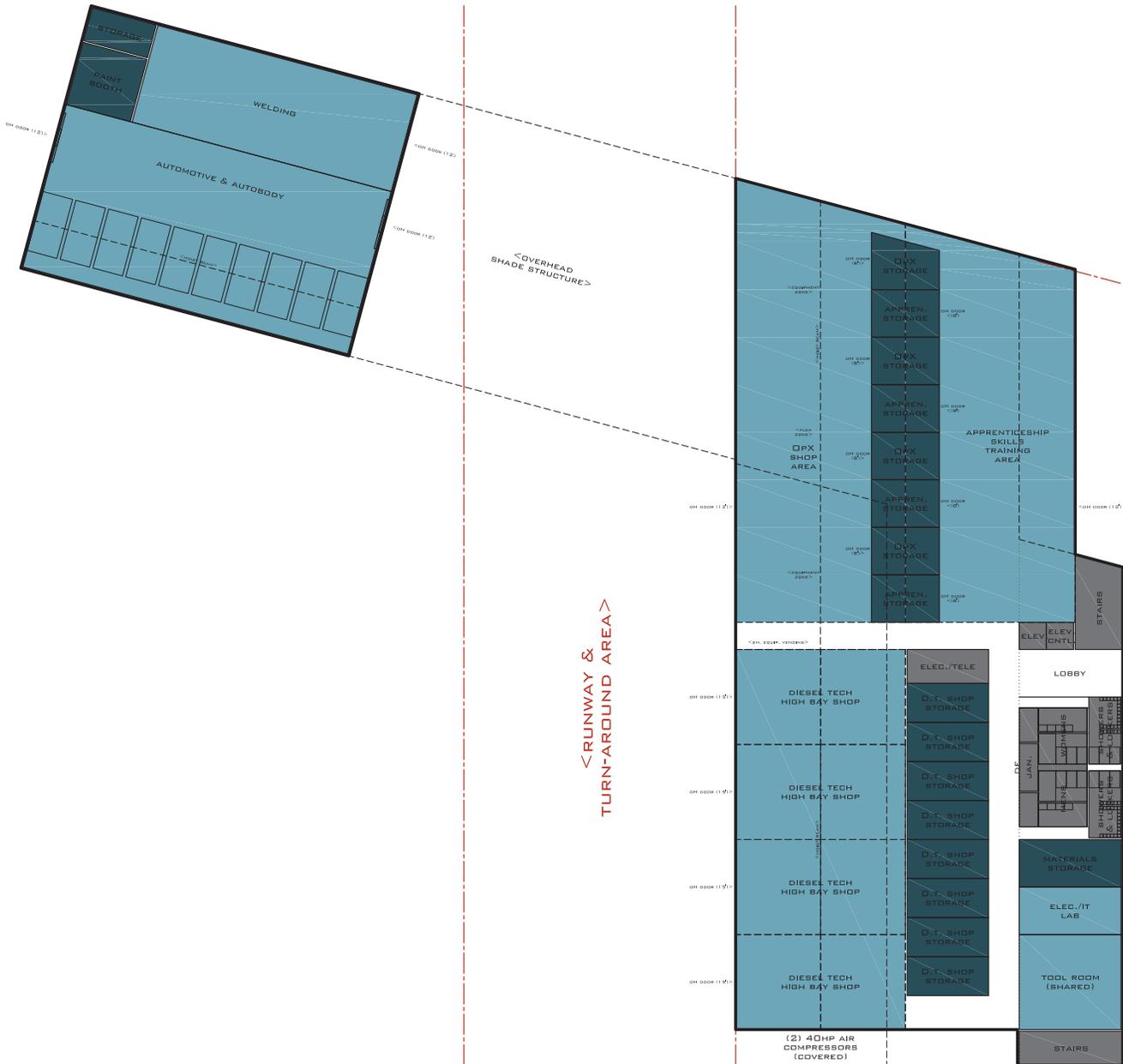


<< Programming Requirements Test Fit Floor Plan

PROFESSIONAL TRADES > TEST FIT FLOOR PLAN

The Professional Trades Wing is organized around a central, double-loaded concourse that runs generally east-to-west, with featured programs at each end of the building. The Test-Fit floor plan is generally a bar building, bent into an "S" shaped to fit the site constraints, as well as provide an embracing/welcoming form factor for both the north (ceremonial gateway to campus) and the south (day-to-day main entry) sides of the building. As illustrated in the Test-Fit floor plan, DXATC prefers the main south entry and the north entry both to directly connect to this central concourse via an atrium space. All stairways and program-specific sub-corridors should be directly connected to this central circulation element. At the west end of the central concourse, direct connection to the Industrial Trades Wing must be provided. On level 2, a Sky Bridge will help to fully leverage the unique opportunity to integrate and cross-pollinate programs/students/faculty/administrators in both the Professional Trades Wing and the Industrial Trades Wing via shared resources and amenities (i.e. Auditorium, Bookstore, Café, Study Lounges, Testing Center, Rooftop Terrace, and convenient access to Student Services and Administration). Additionally, at each level, a featured program should be located at the both ends of the concourse to fully activate the entire building. The Test-Fit floor plans illustrate the preferred relationships as follows: Level 1; Drafting and Design located at the east end, Café/Kitchen/Culinary Arts located at the west end. Level 2; Administration located at the east end, Auditorium (and Sky Bridge) located at the west end. Level 3; Medical Assisting and related program clusters located at the east end, and the multipurpose rooms associated with Jobs Now/STIT/Custom Fit and the Rooftop Terrace located at the west end.

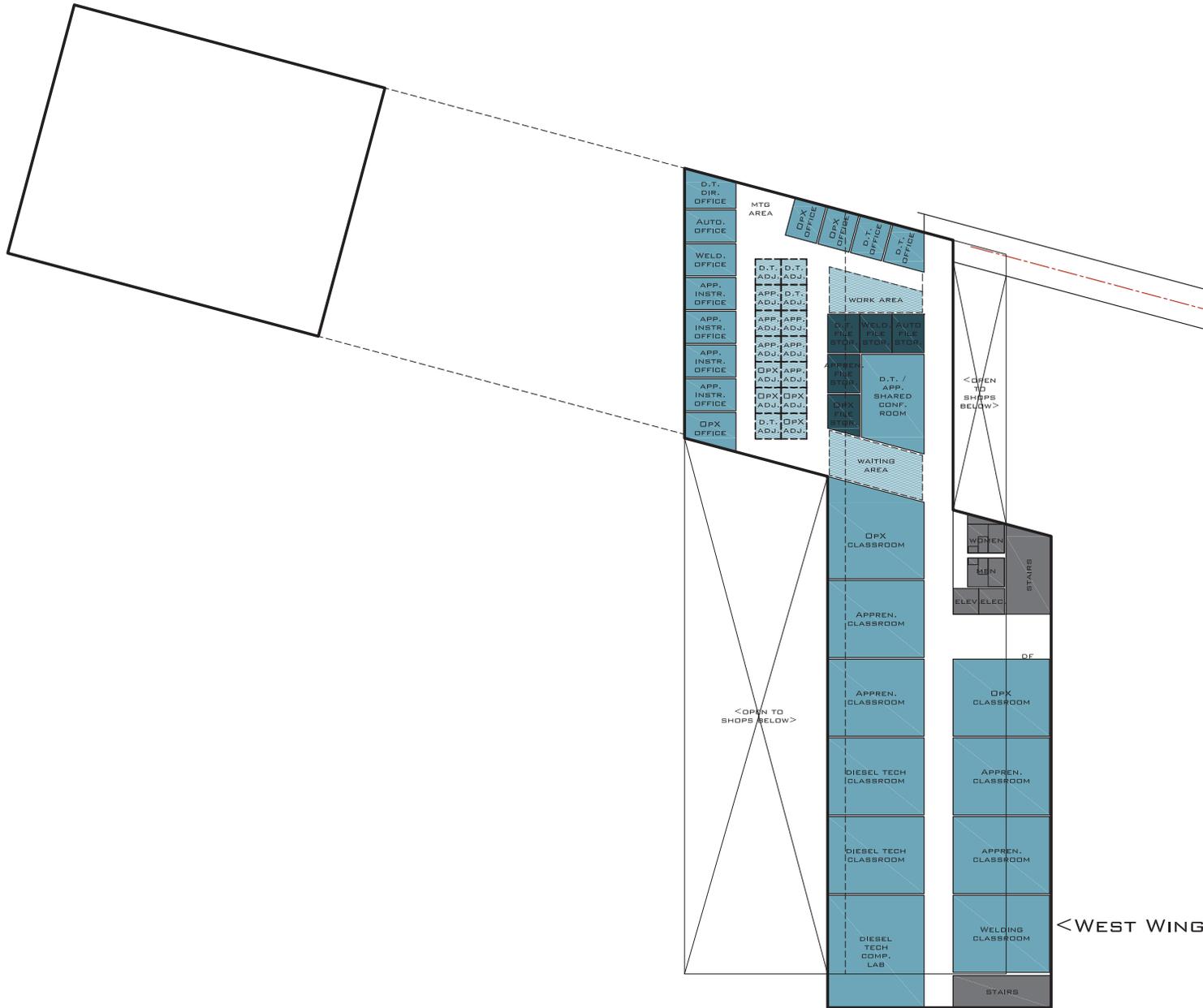




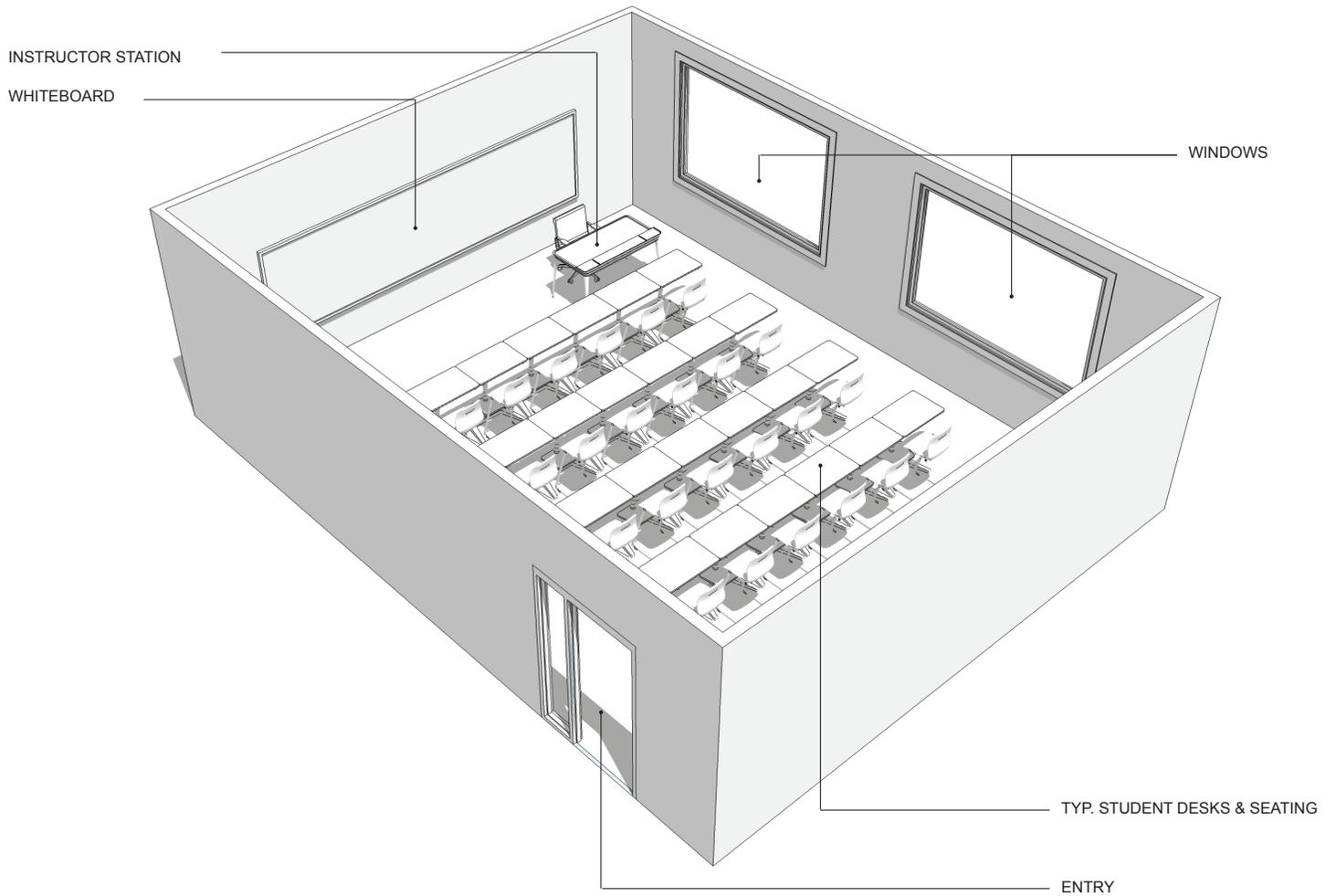
TEST FIT FLOOR PLAN << Programming Requirements
East - Level 01



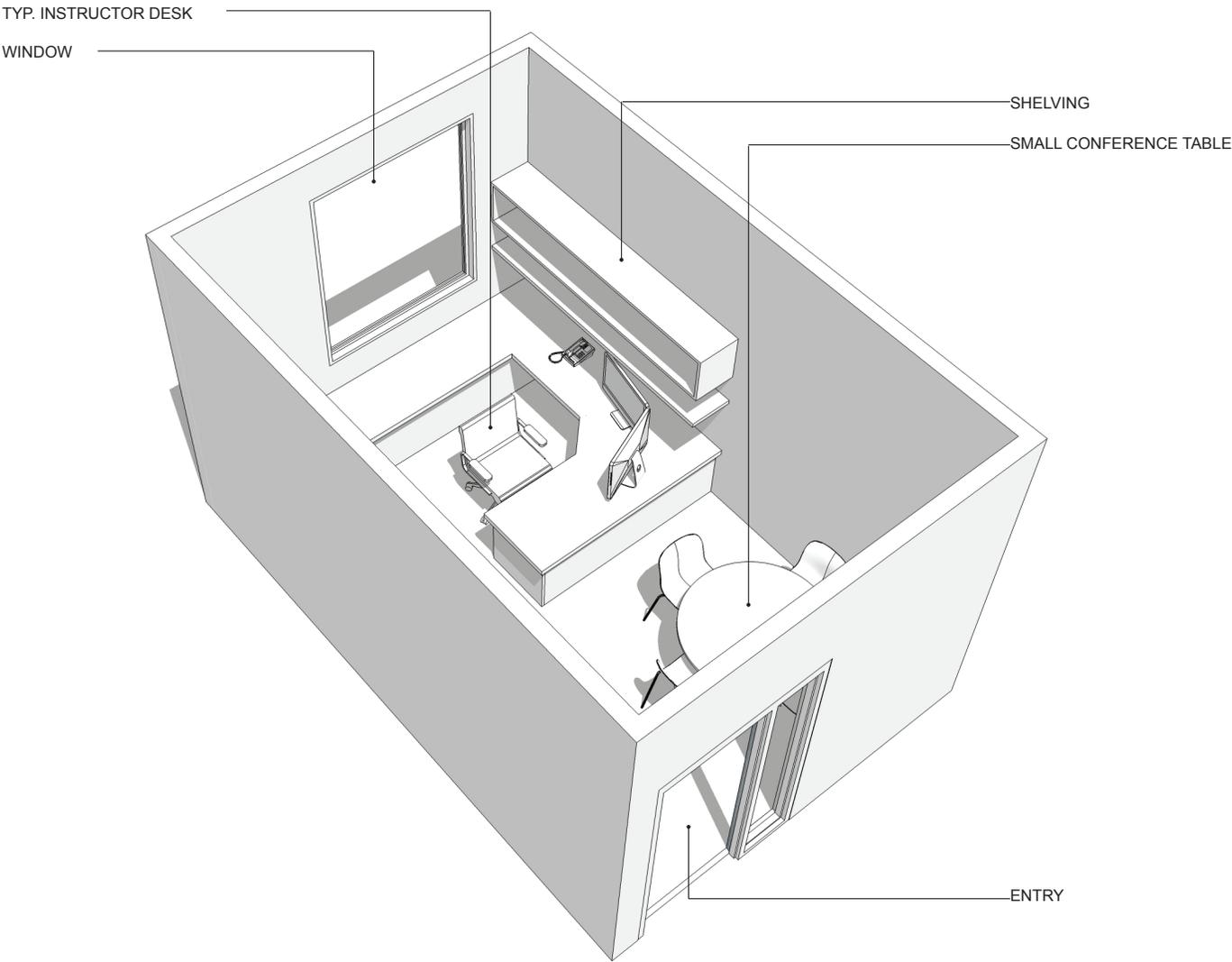
NG



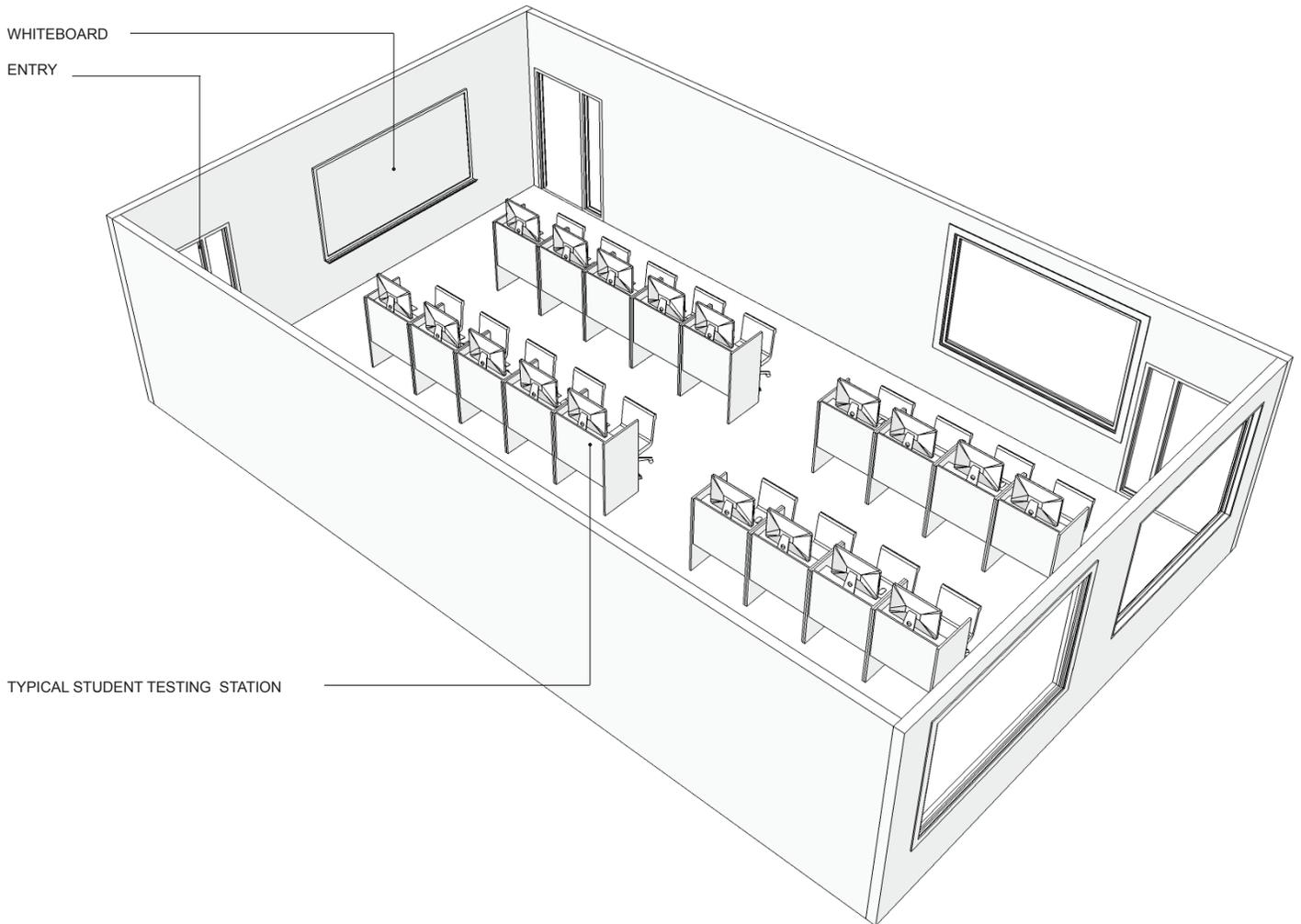
CLASSROOM



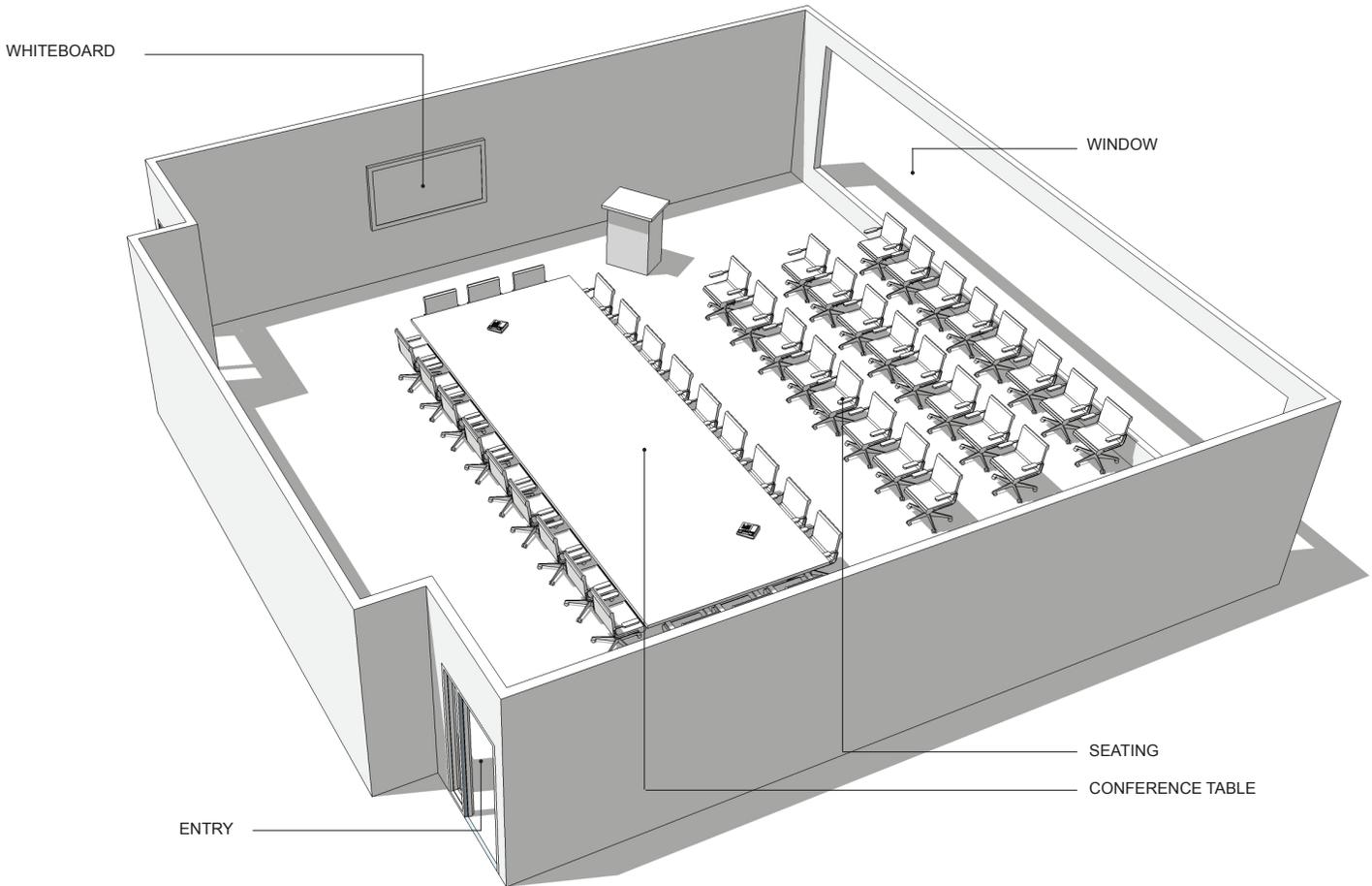
OFFICE



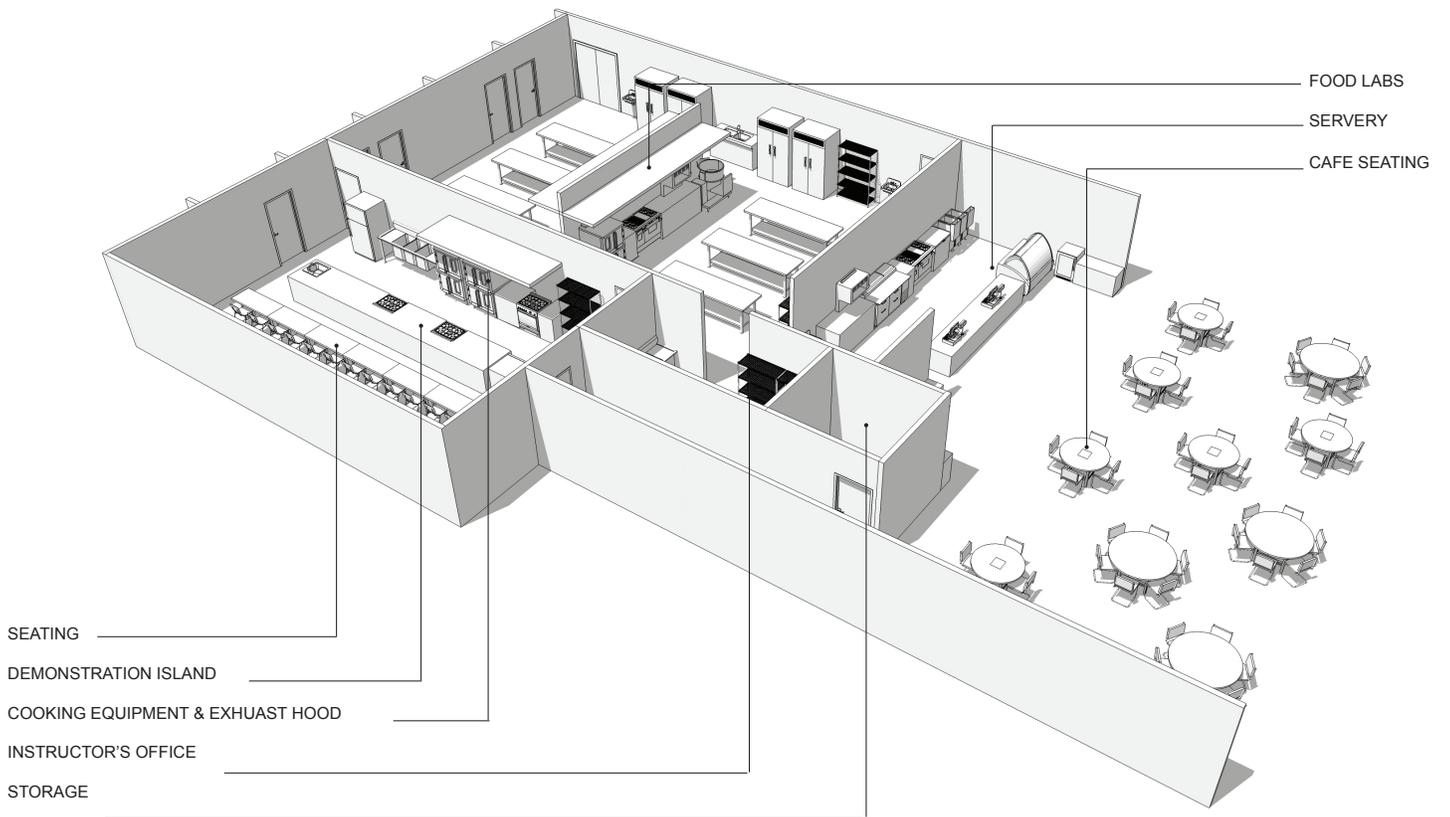
TESTING CENTER



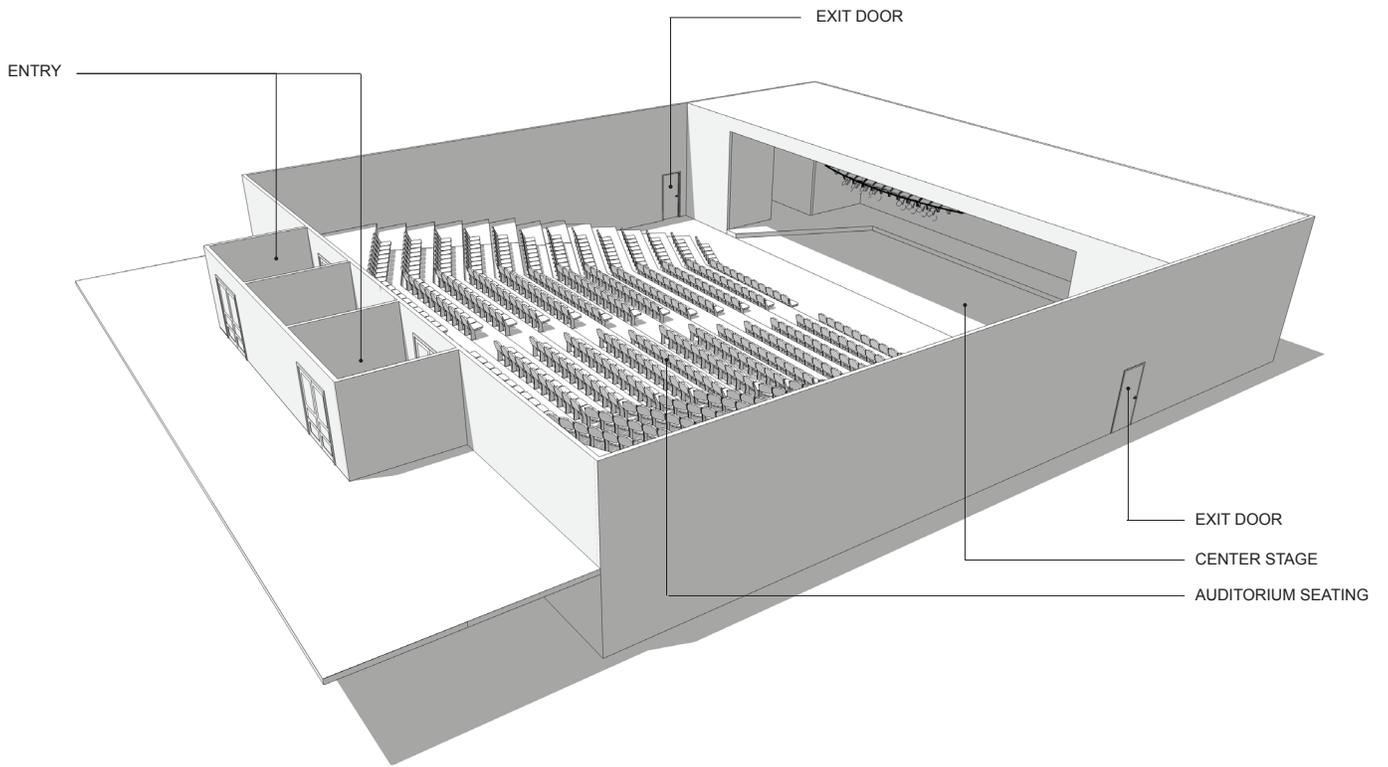
BOARD ROOM



CULINARY



AUDITORIUM



Program Space Index



Administration

125	President Office Suite
127	Vice President Office
129	Director of Industry Training Office
131	Director of Marketing Office
133	Director of Human Resources Office
135	Director of Finance Office
137	Director of Custom Fit Office
139	Marketing Assistant Office
141	Custom Fit Assistant Office
143	Open Workstations
145	Main Reception / Waiting Area
147	Board Room
149	Board Room Ante Room
151	Conference Room
153	Marketing Workroom
155	Marketing Storage
157	Marketing Copy / Fax
159	Break Room / Prep Kitchen
161	Records Room
163	Storage
165	Workroom
167	Restroom
169	Director Office
171	Assistant Office
173	Open Workstation

Program Support

177	Entry Vestibule
179	Information and Display Gallery
181	Informal Study Lounge
183	Break-Out Study Rooms
185	Touch & Go Zones
187	Testing Center
189	Testing Center Proctor Office
191	Testing Center Check-In / Lockers
193	Bookstore Sales
195	Bookstore Stockroom
197	Bookstore Office
199	Kitchen
201	Cafeteria
203	Walk-In Pantry
205	Walk-In Freezer / Cooler
207	Kitchen Manager Office
209	Coffee Kiosk
211	Student Break Area
213	Exercise Room
215	Quiet Room

217	Kitchen Restroom / Lockers
219	Auditorium
221	Open Vending

Student Services

225	Student Services Director Office
227	Advisor Office
229	Registrar Office
231	Financial Aid Office
235	Foundation Coordinator Office
237	Recruiter Office
239	Host Room
241	Reception / Waiting Area
243	Cashier Office
245	Cashier Count Room
247	Storage
249	Conference Room
251	File Room
253	Restroom
255	Workroom
257	Break Room
259	Security Restroom
261	Security Waiting Area
263	Security Room
265	IT Director Office
267	IT Support Office
269	IT Workroom / Storage
271	IT Server Room
273	Mail Workroom
275	Mail Pick-Up Room

Diesel Technology

279	Classroom
281	Computer Lab
283	Tool Room
285	High Bay
287	Diesel Technology Director Office
289	Instructor Office
291	Open Adjunct Office Area
293	Conference Room
295	Storage
297	Storage / File Room

Drafting and Design

301	Drafting Classroom
303	Lecture Area
305	Pin-Up Area
307	GIS Classroom

309 Print / Workroom
 311 Instructor Office
 313 Open Workstation
 315 Instructor Office

Information Technology

319 Lecture Area
 321 Computer Lab
 323 Server Room
 325 IT Director Office
 327 Instructor Office
 329 Open Workstation
 331 Storage / File Room

Office Management

335 Classroom
 337 Employee Development Center
 339 Computer Lab
 341 Instructor Office
 343 Waiting Area
 345 Storage

Medical Assisting

349 Classroom
 351 Waiting / Reception Area
 353 Open Lab Area
 357 Phlebotomy Room
 359 Exam Room
 361 Surgical Suite
 363 X-Ray Room
 365 Lab Prep Room
 367 Laundry Room
 369 Hospital Training Room
 371 Training Restroom
 373 Training Restroom with Shower
 375 Mock Nurses Station
 377 Simulation Lab
 379 Control Room
 381 Computer Lab
 383 Workroom
 385 Instructor Office
 389 Open Workstation
 391 Conference Room
 393 Storage

Pharmacy Technology

397 Classroom
 399 Mock Pharmacy

401 Pharmacy Lab
 403 Instructor Office
 405 Storage / File Room

Apprenticeship (HVAC)

409 Classroom
 411 Skills Training Lab
 413 Instructor Office
 415 Open Adjunct Office Area
 417 Waiting Area
 419 Work Area
 421 Storage

Dental Assisting and Dental Office

425 Classroom
 427 Dental Lab
 429 Lab Prep Room
 431 Lab Sterilization Room
 433 X-Ray Room
 435 Front Office / Reception
 437 Waiting Area
 439 Charting Office
 441 Instructor Office
 443 Storage

OPx

447 Classroom
 449 Workshop Area
 451 Instructor Office
 453 Open Adjunct Office
 455 Instructor Office
 457 Storage
 459 Materials Storage

CATAPULT

463 Classroom
 465 Reception
 467 Open Workstation
 469 Instructor Office
 471 Storage

Custom Fit / Jobs Now / STIT

475 Classroom
 477 Multi-Purpose Room
 479 Classroom
 481 Chair Storage
 483 Storage
 485 Catering Prep Room

Culinary Arts

489 Demonstration Classroom
 491 Instructor Office
 493 Storage

Welding

497 Classroom
 499 Workshop
 501 Instructor Office
 503 Storage

Automotive and Autobody

507 High Bay Shop
 509 Paint Booth
 511 Instructor Office
 513 Storage

Graphic Arts

517 Classroom
 519 Workroom
 521 Instructor Office
 523 Storage

Floral and Landscape

527 Classroom
 531 Storage
 533 Instructor Office
 535 Floral Retail
 537 Floral Display / Cooler
 539 Floral Workroom

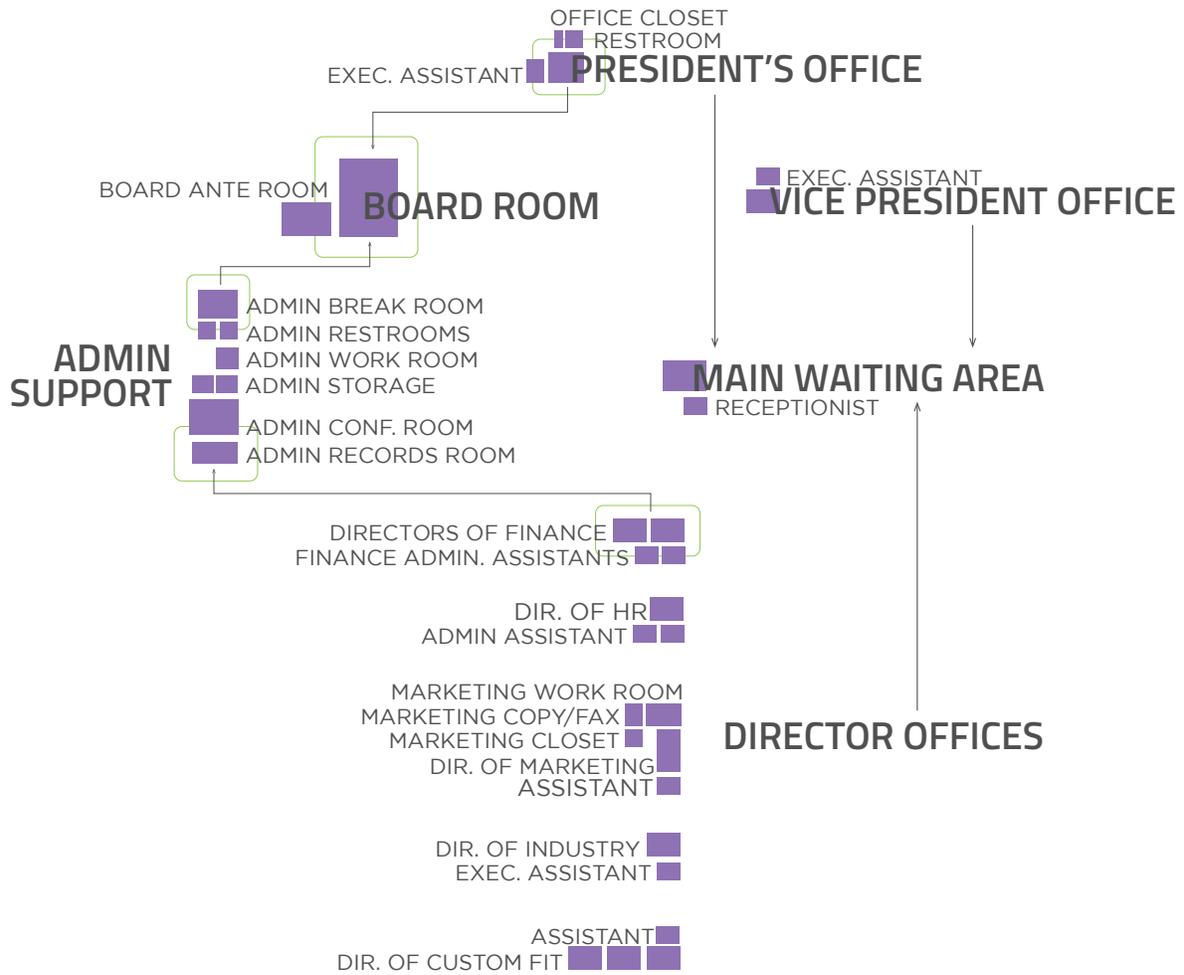
Building Support - East Wing

543 Public Restroom
 547 Locker / Shower Room
 549 Mechanical Room
 553 Electrical Room
 555 Electrical Closet
 557 Building Manager Office
 559 Telecommunications Room
 561 Storage
 563 Attic Stock Room
 565 Exterior Maintenance Storage

Building Support - East Wing

569 Locker / Shower Room
 571 Public Restroom
 573 Electrical Room

Adjacency Diagram >>
Administration



Space Requirements

SPACE SUMMARY:

Type of Space: Office.

Number Required: 1

Total Number: 1

Occupants: 1-6

Area: 498 SF

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2

Adjacencies: Board Room, exit, private restroom.

Separation: Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: Wood Paneling.

Sound: Secure and sound proof ceiling, insulated for sound control. STC 55

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: Exterior.

Glazing: Low-E.

Natural Light: Mandatory.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat closet; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Loveseat and soft chair; Lamp table.

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: Private restroom.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

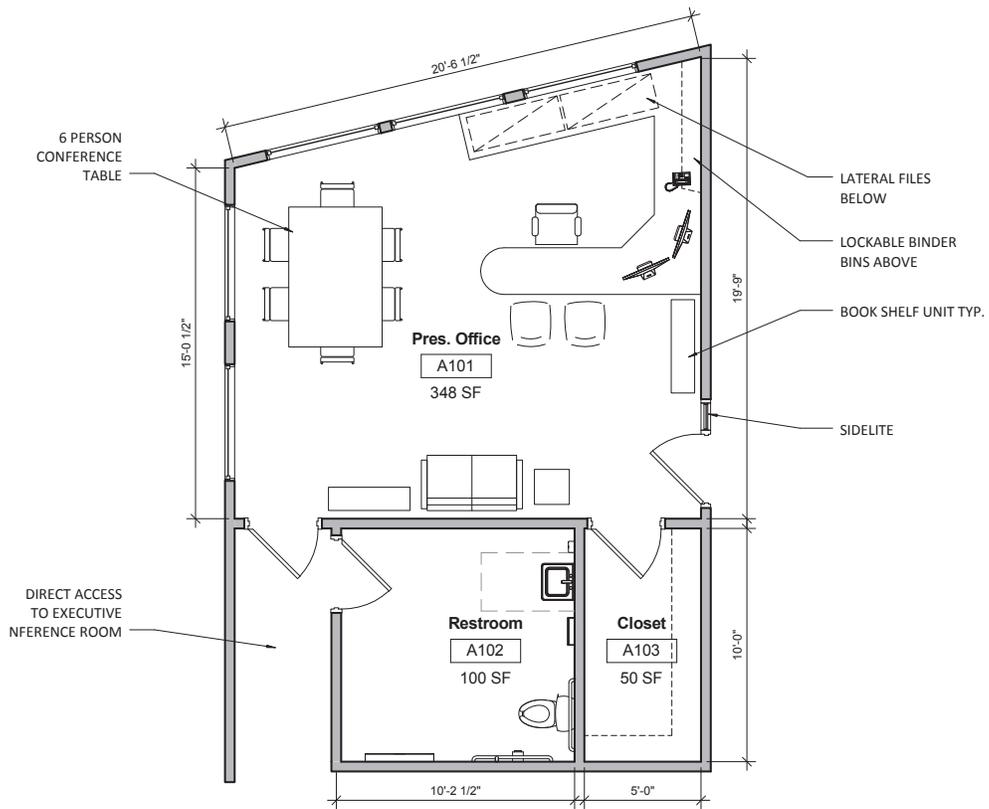
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space: Office.**Number Required:** 1**Total Number:** 1**Occupants:** 1-4**Area:** 225 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** None Required.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control. STC 55

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: Exterior.**Glazing:** Low-E.**Natural Light:** Mandatory.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

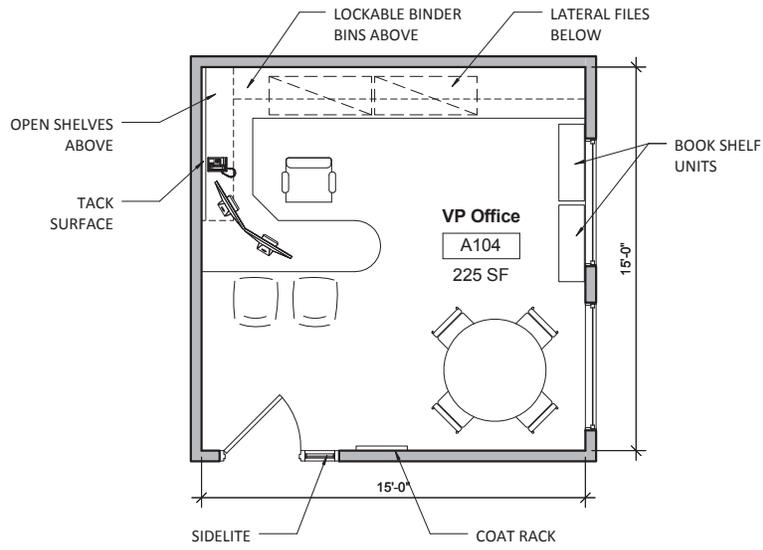
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40-50 Task**Controls:** Vacancy Sensor, Daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space: Office.**Number Required:** 1**Total Number:** 1**Occupants:** 1-4**Area:** 225 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** None Required.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control. STC 55

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: Exterior.**Glazing:** Low-E.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

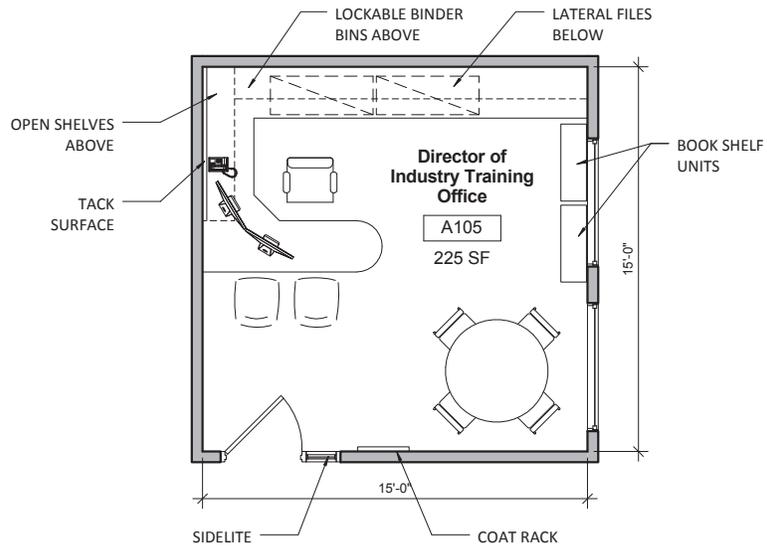
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.**Phone/Data:** 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40-50 Task**Controls:** Vacancy Sensor, Daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-4
Area:	225 SF
Primary Function:	Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control. STC 55

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

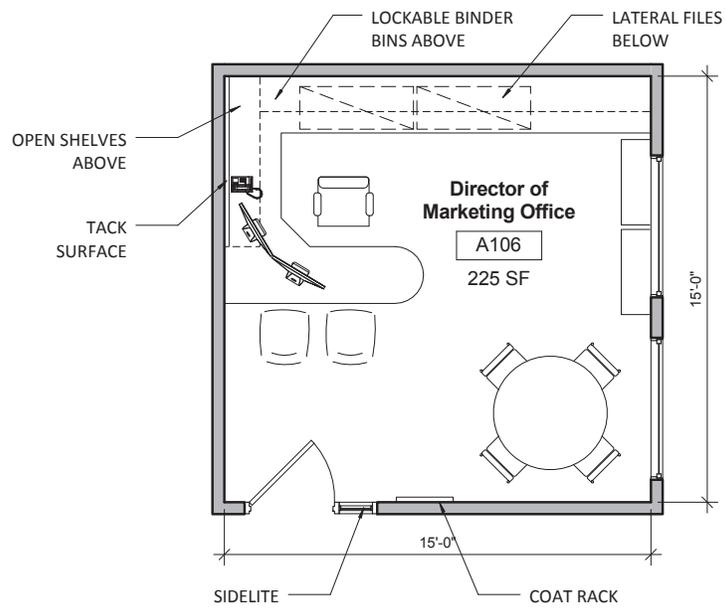
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space: Office.**Number Required:** 1**Total Number:** 1**Occupants:** 1-4**Area:** 225 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** HR; Payroll; Purchasing.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control. STC 55

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: Exterior.**Glazing:** Low-E.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

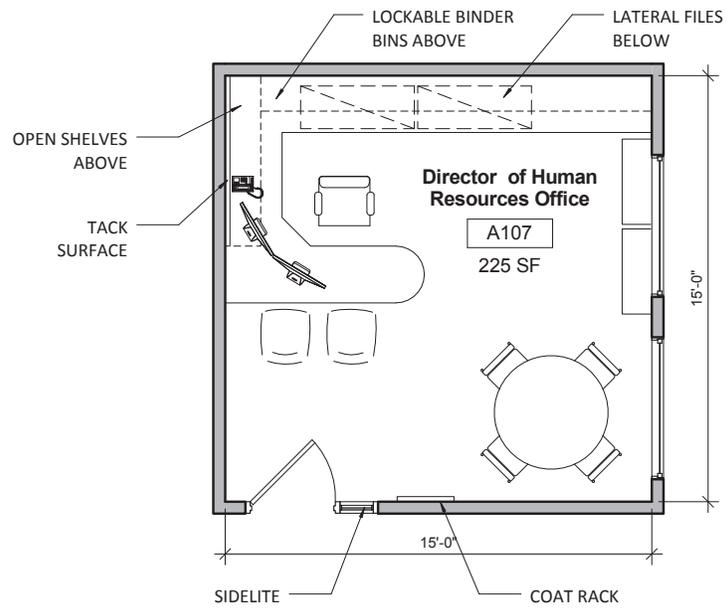
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.**Phone/Data:** 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40-50 Task**Controls:** Vacancy Sensor, Daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space: Office.**Number Required:** 1**Total Number:** 1**Occupants:** 1-4**Area:** 230 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** None Required.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control. STC 55

CEILING HEIGHT:

Above Finish Floor (AFF):

10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: Exterior.**Glazing:** Low-E.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

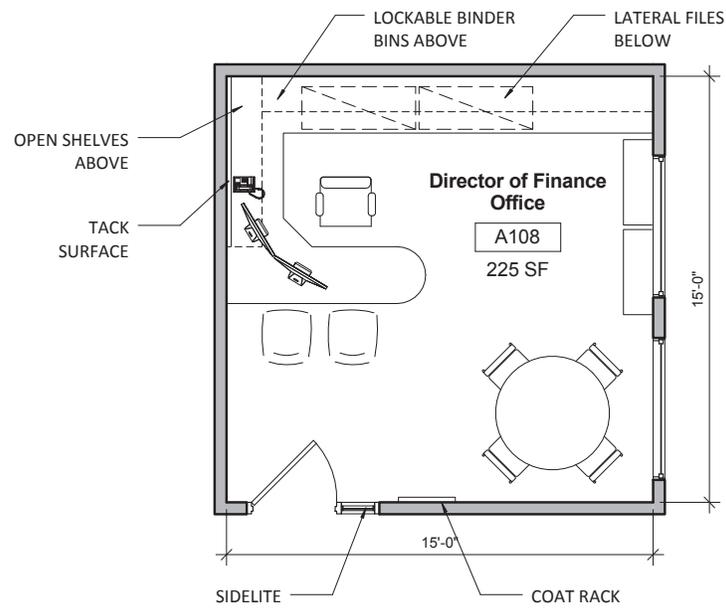
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.**Phone/Data:** 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40-50 Task**Controls:** Vacancy Sensor, Daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space: Office.**Number Required:** 1**Total Number:** 1**Occupants:** 1-4**Area:** 225 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** None Required.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control. STC 55

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: Exterior.**Glazing:** Low-E.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

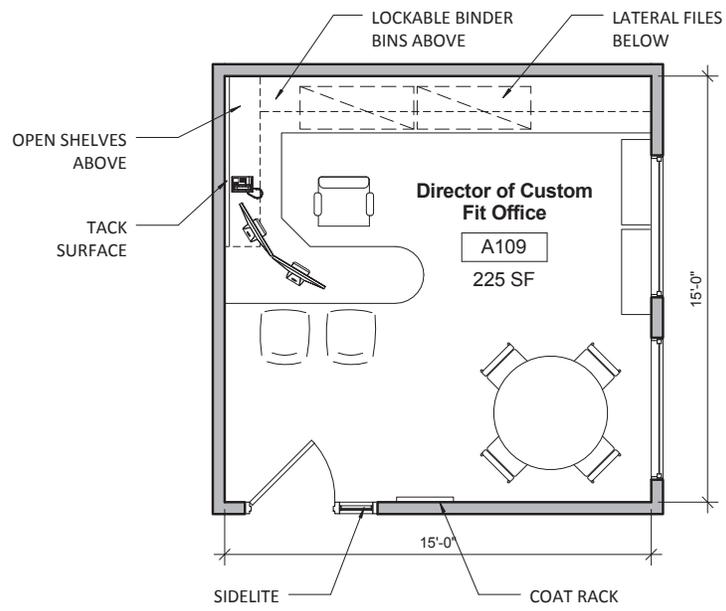
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.**Phone/Data:** 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40-50 Task**Controls:** Vacancy Sensor, Daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space: Office.**Number Required:** 1**Total Number:** 1**Occupants:** 1-3**Area:** 120 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** Marketing director office.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control. STC 55

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.**PRIVACY/SECURITY:**
None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: Exterior.**Glazing:** Low-E.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs.

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

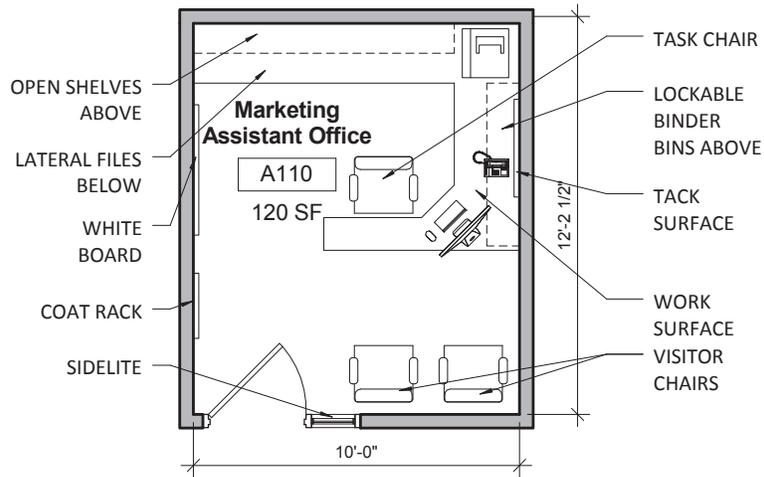
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40-50 Task**Controls:** Vacancy Sensor, Daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space: Office.**Number Required:** 1**Total Number:** 1**Occupants:** 1-3**Area:** 120 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** Custom Fit director office.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control. STC 55

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.**PRIVACY/SECURITY:**
None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: Exterior.**Glazing:** Low-E.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs.

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

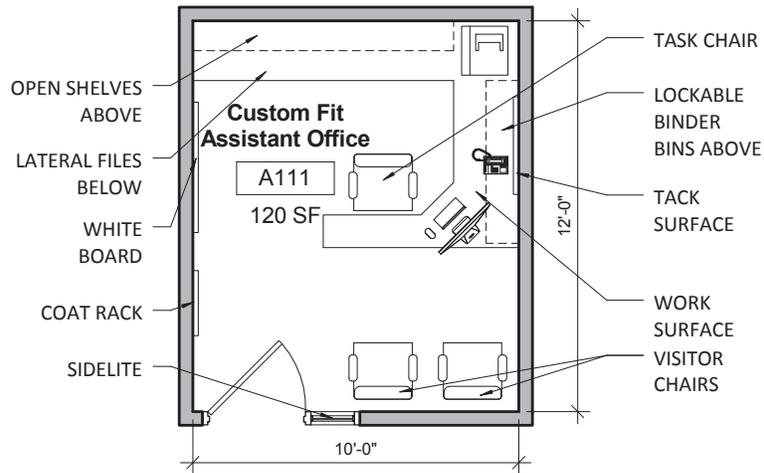
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40-50 Task**Controls:** Vacancy Sensor, Daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space: Open workstation

Number Required: 1

Total Number: 8

Occupants: 1

Area: 122 SF

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2

Adjacencies: President office, VP office, Industry Training Director office, reception area.

Separation: Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:

Clean, organized, welcoming, and comfortable.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control. STC 55

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: None required.

Frame: None required.

Special: None required.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Desk; Shelves and locking storage; Tackboard.

MOVEABLE FURNISHINGS:

-Staff rolling chair.

EQUIPMENT:

-Computer; Monitor; Phone; Trash can.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

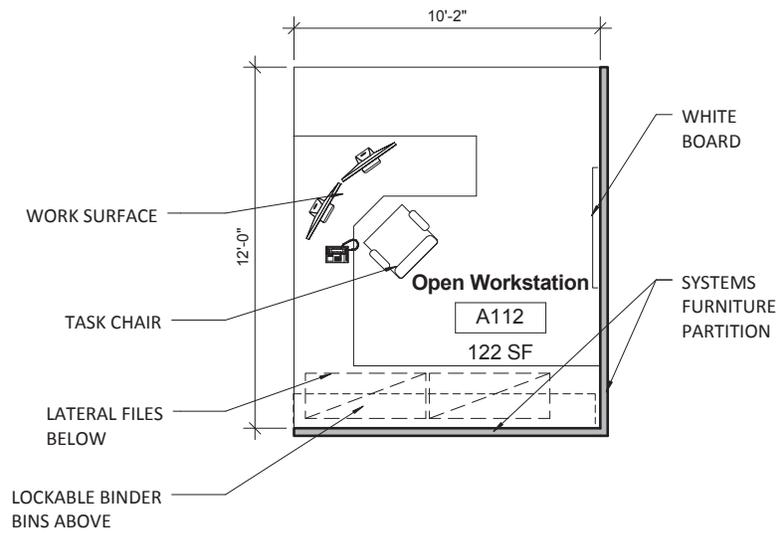
LIGHTING:

Fixture Type: T8 or LED Volumetric Lay-in or Suspended Linear

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Reception / Waiting
Number Required:	1
Total Number:	1
Occupants:	35
Area:	509 SF
Primary Function:	Reception work area / waiting area.

RELATIONSHIPS:

Location:	Level 2
Adjacencies:	President's office and Assistant's office, Reception desk.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, welcoming, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF):	10'-0" Min.
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PRIVACY/SECURITY:

Glass security doors.

DOORS:

Type:	Glass security doors.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-Couch, comfortable chair, side table, coffee table.

EQUIPMENT:

-Computer;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

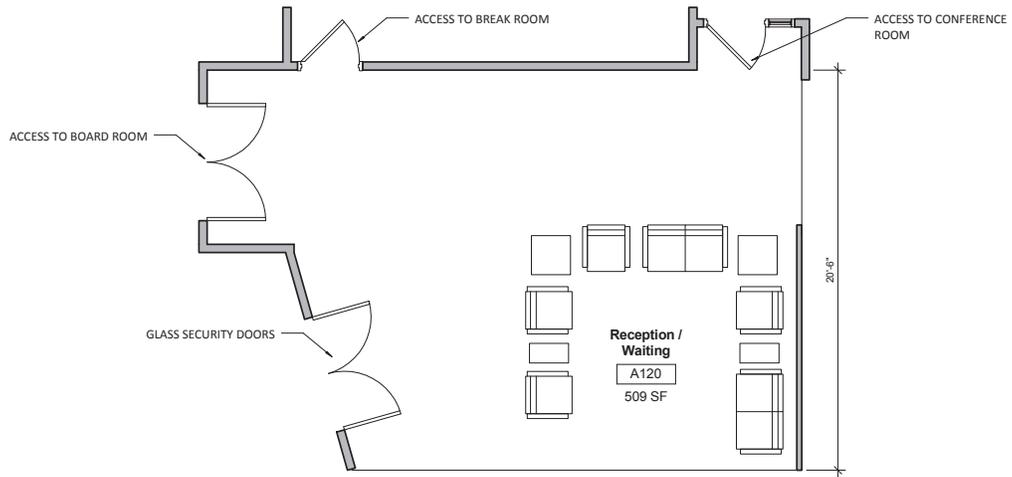
LIGHTING:

Fixture Type: T8 or LED Volumetric Lay-in or Suspended Linear

Accent Lighting: 2 walls for pictures and certificates

Foot Candles: 20 Ambient / 40 at work surface

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Board Room

Number Required: 1

Total Number: 1

Occupants: 48

Area: 1564 SF

Primary Function: Private and professional conference area, equipped to accommodate and display all current technology formats.

RELATIONSHIPS:

Location: Level 2

Adjacencies: President office, board room ante room.

Separation: None required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting, views to northeast.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control. STC 60, acoustical wall panels.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: Exterior.

Glazing: Low-E.

Natural Light: Mandatory.

CASEWORK/FIXED EQUIPMENT:

-Lockable lower and upper cabinets; counter top; whiteboard.

MOVEABLE FURNISHINGS:

-Large table; 48 chairs.

EQUIPMENT:

-80" LCD TVs, ICV system compatible, conference telephone.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 25-30 (NC/RC)

Special Systems: None required.

Plumbing: Sink, water, waste, and vent.

ELECTRICAL:

Power: 1 duplex receptacle per wall. 2 floor-plex floor box under table. Additional capacity for equipment listed.

Phone/Data: 1 devices on opposing walls. 1 floor box under table.

Video: A/V system with internet connection. Projector and 16:9 format screen.

Audio: Ceiling speakers, table top microphones, teleconferencing system.

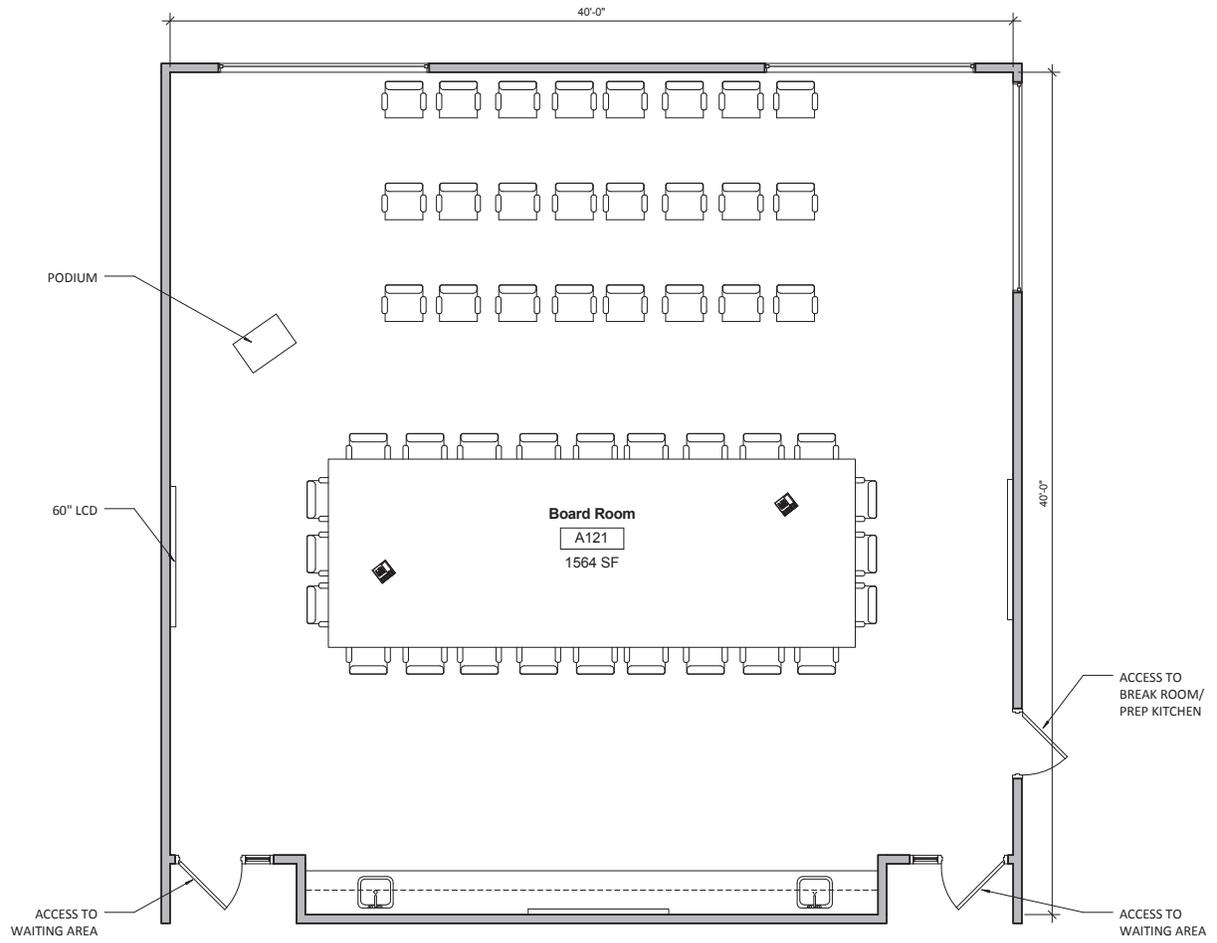
LIGHTING:

Fixture Type: LED directional video conference Lay-in & decorative

Accent Lighting: LED

Foot Candles: 50

Controls: Vacancy Sensor, Daylighting w/continuous dimming, preset scene dimming controller



Space Requirements

SPACE SUMMARY:

Type of Space:	Reception / Waiting
Number Required:	1
Total Number:	1
Occupants:	35
Area:	292 SF
Primary Function:	Reception work area / waiting area.

RELATIONSHIPS:

Location:	Level 2
Adjacencies:	Board Room.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, welcoming, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	None required.
Frame:	None required.
Special:	None required.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-Couch, comfortable chair, side table, coffee table.

EQUIPMENT:
-None required.

Technical Requirements

MECHANICAL:
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

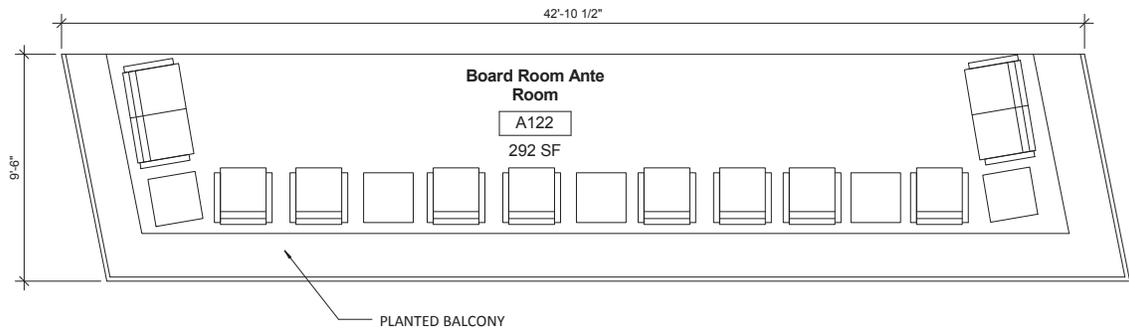
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear

Accent Lighting: None required

Foot Candles: 20

Controls: Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Conference Room

Number Required: 1

Total Number: 1

Occupants: 18

Area: 568 SF

Primary Function: Private and professional conference area, equipped to accommodate and display all current technology formats.

RELATIONSHIPS:

Location: Level 2

Adjacencies: President's Office

Separation: None required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control. STC 60, acoustical wall panels.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: Exterior.

Glazing: Low-E.

Natural Light: Mandatory.

CASEWORK/FIXED EQUIPMENT:

-Lockable lower and upper cabinets; counter top; whiteboard.

MOVEABLE FURNISHINGS:

-Large table; 18 chairs; whiteboard; media chart.

EQUIPMENT:

-60" LCD, conference telephone.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: Sink, water, waste, and vent.

ELECTRICAL:

Power: 1 duplex receptacle per wall. 2 four-plex floor box under table. Additional capacity for equipment listed.

Phone/Data: 1 devices on opposing walls. 1 floor box under table.

Video: A/V system with internet connection. Projector and 16:9 format screen.

Audio: Ceiling speakers, table top microphones, teleconferencing system.

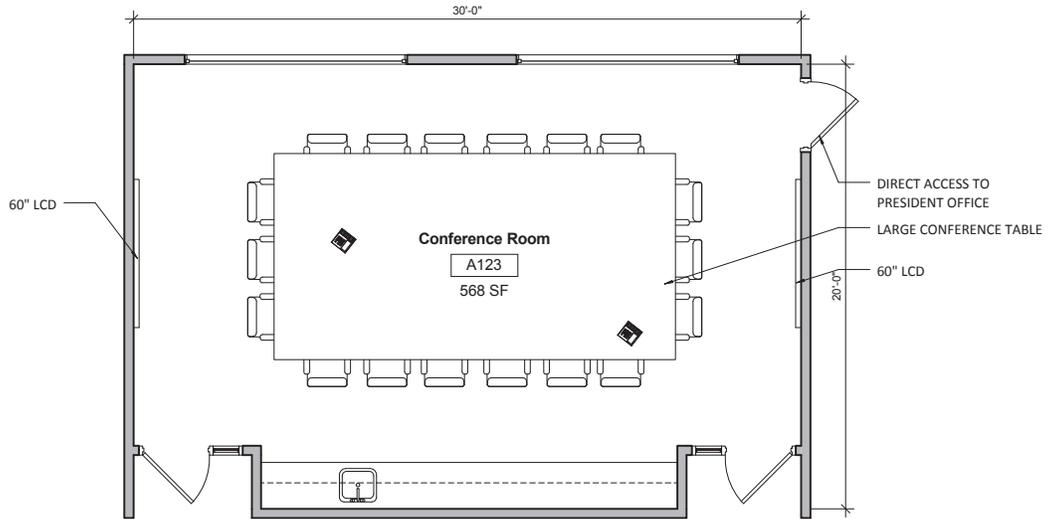
LIGHTING:

Fixture Type: LED directional video conference Lay-in & decorative

Accent Lighting: LED

Foot Candles: 50

Controls: Vacancy Sensor, Daylighting w/continuous dimming, preset scene dimming controller



Space Requirements

SPACE SUMMARY:

Type of Space: Workroom**Number Required:** 1**Total Number:** 1**Occupants:** 1-2**Area:** 331 SF**Primary Function:** Adequate equipment and counter space for copying, printing, and large document assembly and layout.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** Marketing director office; Marketing storage.**Separation:** None Required.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, and natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF):

10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: None required.**Glazing:** None required.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Upper and lower cabinets; counter top; 8' whiteboard; tack board.

MOVEABLE FURNISHINGS:

-Work table.

EQUIPMENT:

-Computer; 2 monitors; printers; label maker; copy machine; desktop speaker phone; paper shredder; fax machine.

Technical Requirements

MECHANICAL:

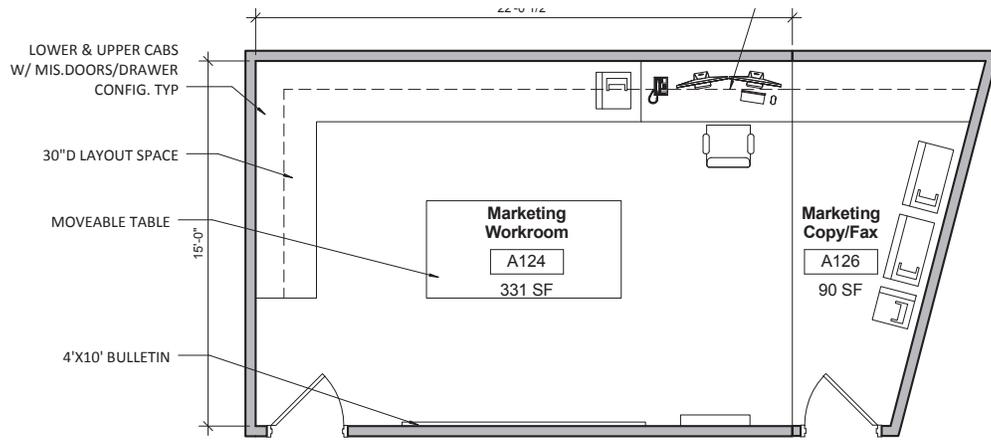
Ventilation: 10 CFM/person + 0.12 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.**Video:** None required.**Audio:** None required.

LIGHTING:

Fixture Type: T8 or LED lay-in volumetric**Accent Lighting:** LED under upper cabinets.**Foot Candles:** 40**Controls:** Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Walk-in storage closet / room
Number Required:	1
Total Number:	1
Occupants:	0
Area:	150 SF
Primary Function:	Storage for publications; event preparation; items; banners; signage; shirts; giveaways; etc.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	Marketing director office.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Flexible space.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Painted gypsum board.
Specialty Finishes:	Low dust.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:

Windows into other spaces; Not in main student traffic areas; Anti-theft protection.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	Interior.
Glazing:	Clear glass.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Creative shelving for PR / Ads / Marketing supplies and signage.
-Open shelving for publications; trade show booth; rolled banners; event equipment; speaker systems; podiums etc.

MOVEABLE FURNISHINGS:

-Work table / station at standing height.

EQUIPMENT:

-Storage bins for logo items like pens, lanyards, etc.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

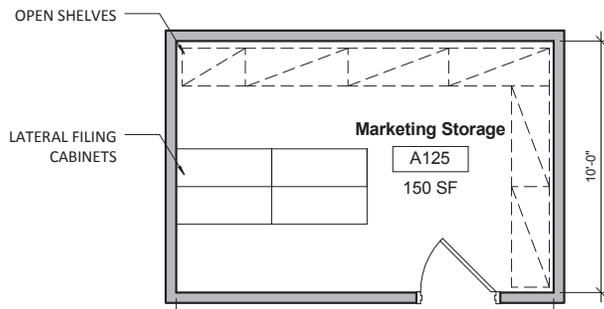
LIGHTING:

Fixture Type: T8 or LED Striplight or Wrap

Accent Lighting: None required

Foot Candles: 20

Controls: Vacancy sensor



Space Requirements

SPACE SUMMARY:

Type of Space:	Copy / Fax workroom.
Number Required:	1
Total Number:	1
Occupants:	1
Area:	90 SF
Primary Function:	Adequate equipment and counter space for copying, printing, and document assembly.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	Marketing director office.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Flexible space.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Upper and lower cabinets.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-Computer; 2 monitors; printers; label maker; copy machine; desktop speaker phone; paper shredder; fax machine.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

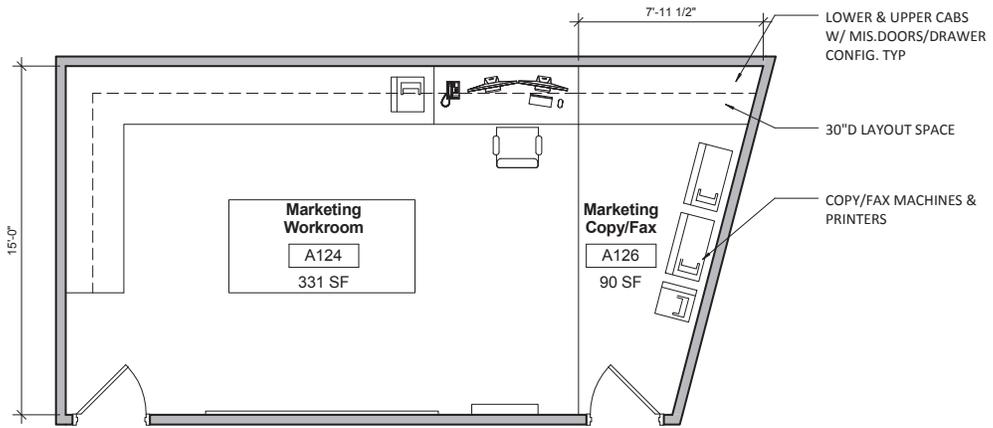
LIGHTING:

Fixture Type: T8 or LED lay-in volumetric

Accent Lighting: LED under upper cabinet

Foot Candles: 40

Controls: Vacancy sensor



Space Requirements

SPACE SUMMARY:

Type of Space: Break room**Number Required:** 1**Total Number:** 1**Occupants:** 1**Area:** 400 SF**Primary Function:** Furniture for dining and relaxing. Kitchen and food prep for faculty and small group functions.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** Board room.**Separation:** None Required.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting, functional, bright.

FINISHES:

Floor: Ceramic tile.**Walls:** Painted gypsum board with backsplash at sink.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: None required.**Glazing:** None required.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Upper and lower cabinets, counter top.

MOVEABLE FURNISHINGS:

-48" round tables with chairs, 3-4 lounge chairs, couch, coffee table.

EQUIPMENT:

-Microwave, large refrigerator with ice maker, small tack board, fire extinguisher.

Technical Requirements

MECHANICAL:

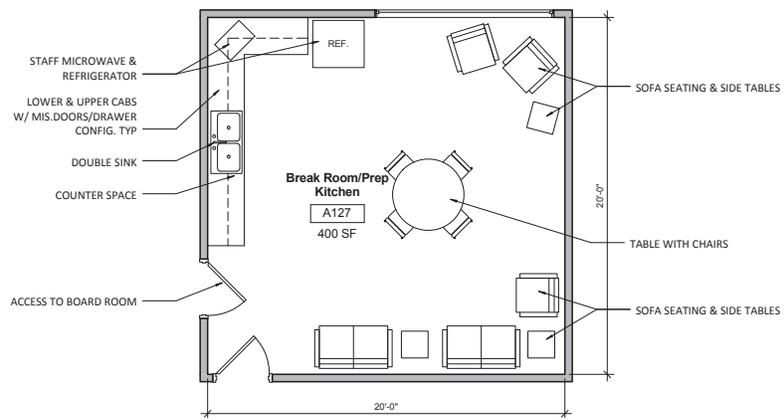
Ventilation: 20 CFM/person.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** Double sink; Water, waste and vent.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.**Video:** None required.**Audio:** None required.

LIGHTING:

Fixture Type: T8 or LED lay-in volumetric**Accent Lighting:** LED under upper cabinet**Foot Candles:** 40**Controls:** Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Secure storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	301 SF
Primary Function:	To provide secure storage for records.

RELATIONSHIPS:

Location:	Level 2
Adjacencies:	Finance.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Warm; clean lines; strength; open with security.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF):	10'-0" Min.
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PRIVACY/SECURITY:

None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

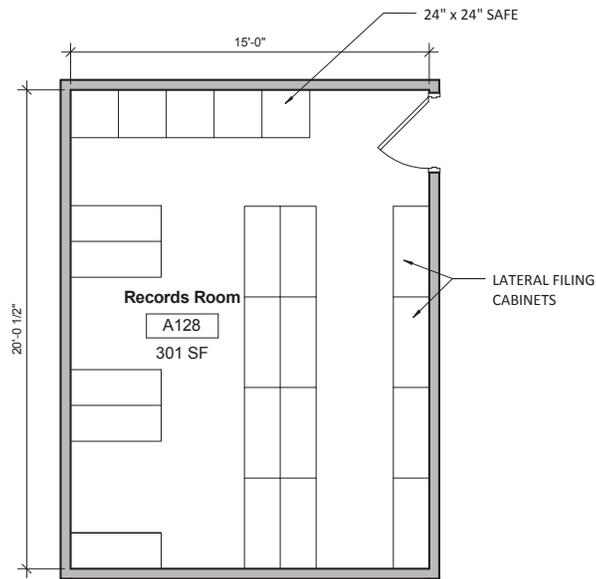
Technical Requirements

MECHANICAL:

Ventilation:	5 CFM/person + 0.06 CFM/sq. ft.
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	None required.
Plumbing:	None required.

ELECTRICAL:

Power:	2 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.
LIGHTING:	
Fixture Type:	T-8 or LED lay-in.
Accent Lighting:	None required.
Foot Candles:	20
Controls:	Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	156 SF
Primary Function:	To provide storage for records, documents, and supplies.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
 Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Painted gypsum board.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:
 None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets, open shelves, 24"x24" safe.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

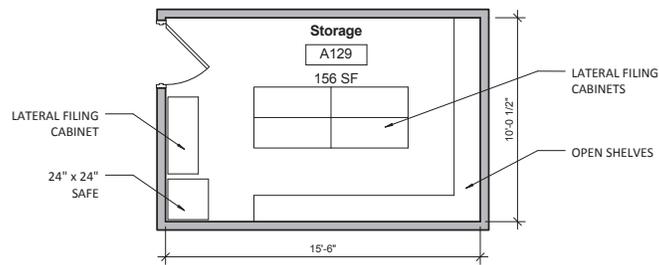
LIGHTING:

Fixture Type: T-8 or LED lay-in.

Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Workroom

Number Required: 1

Total Number: 1

Occupants: 1-2

Area: 150 SF

Primary Function: Adequate equipment and counter space for copying, printing, and document assembly.

RELATIONSHIPS:

Location: Level 2

Adjacencies: None Required.

Separation: None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, and natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" min.

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Upper and lower cabinets; counter top; whiteboard; tack board.

MOVEABLE FURNISHINGS:

-Work table, chair.

EQUIPMENT:

-Label maker; copy machine; desktop speaker phone; paper shredder; fax machine.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

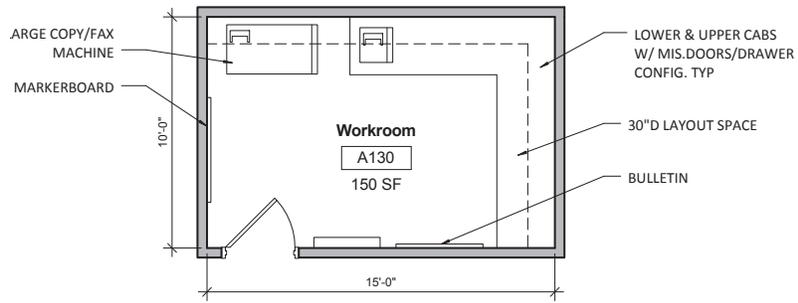
LIGHTING:

Fixture Type: T-8 or LED lay-in.

Accent Lighting: LED under upper cabinet.

Foot Candles: 40

Controls: Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Unisex restroom
Number Required:	2
Total Number:	2
Occupants:	1
Area:	106 SF
Primary Function:	Private administration restroom.

RELATIONSHIPS:

Location:	Level 2
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Porcelain tile, slope to floor drain.
Walls:	Ceramic tile.
Ceiling:	Painted gypsum board.
Specialty Finishes:	None required.
Sound:	Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Water closet; lavatory; mirror; grab bars; dispensers; waste receptacles, shower, lockers.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 1 CFM/sq. ft. 100% Exhaust.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 40 (NC/RC)

Special Systems: 5 min. air exchange exhaust.

Plumbing: Wall hung flush valve water closet; wall hung lavatory; shower; floor drain; water, waste, and venting;

ELECTRICAL:

Power: 1 GFCI duplex outlet per wall.

Phone/Data: None required.

Video: None required.

Audio: None required.

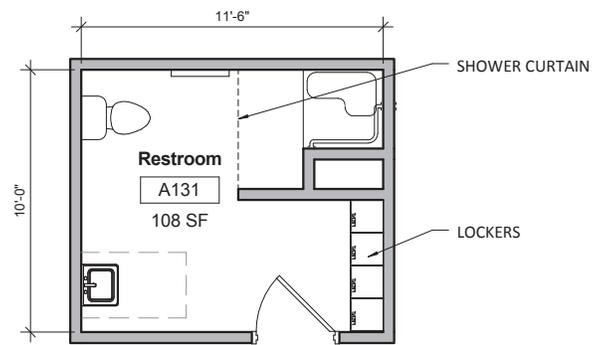
LIGHTING:

Fixture Type: T8 or LED and/or downlights.

Accent Lighting: Required at mirrors.

Foot Candles: 30

Controls: Occupancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Office.**Number Required:** 2**Total Number:** 2**Occupants:** 1-4**Area:** 230 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** None Required.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control. STC 55

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: Exterior.**Glazing:** Low-E.**Natural Light:** Mandatory.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

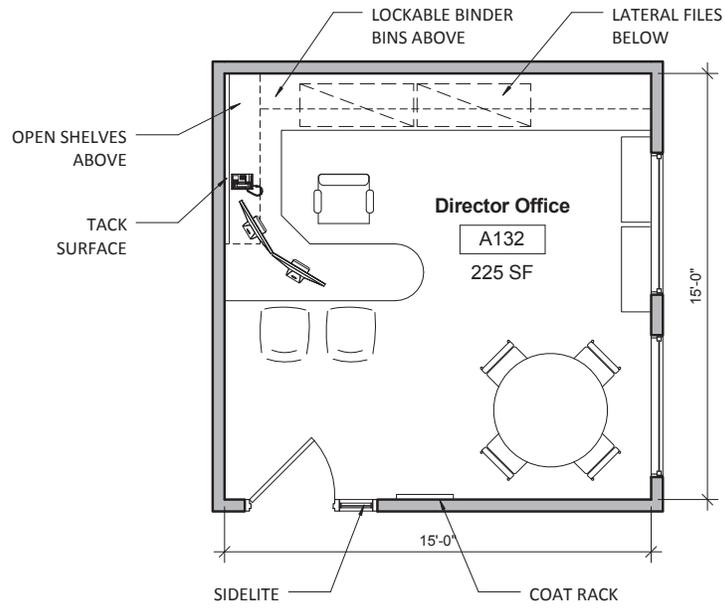
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40-50 Task**Controls:** Vacancy Sensor, Daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space: Office.

Number Required: 1

Total Number: 1

Occupants: 1-3

Area: 120 SF

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2

Adjacencies: None required.

Separation: Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control. STC 55

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs.

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

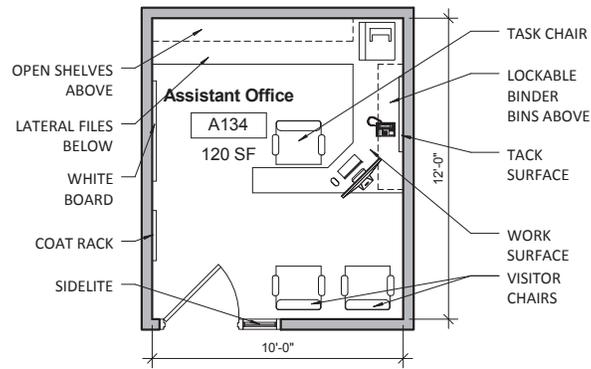
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space: Open workstation

Number Required: 1

Total Number: 3

Occupants: 1

Area: 120 SF

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2

Adjacencies: President office, VP office, Industry Training Director office, reception area.

Separation: Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:

Clean, organized, welcoming, and comfortable.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control. STC 55

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type: None required.

Frame: None required.

Special: None required.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Desk; Shelves and locking storage; Tackboard.

MOVEABLE FURNISHINGS:

-Staff rolling chair.

EQUIPMENT:

-Computer; Monitor; Phone; Trash can.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
2 devices on opposing walls.

Phone/Data:

Video: Rough-in for future capacity.

Audio: None required.

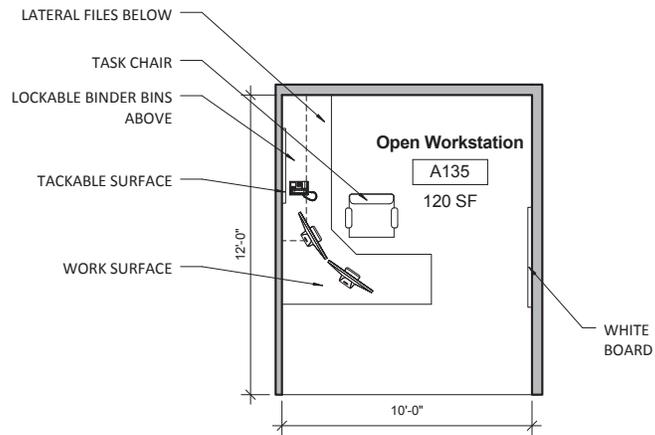
LIGHTING:

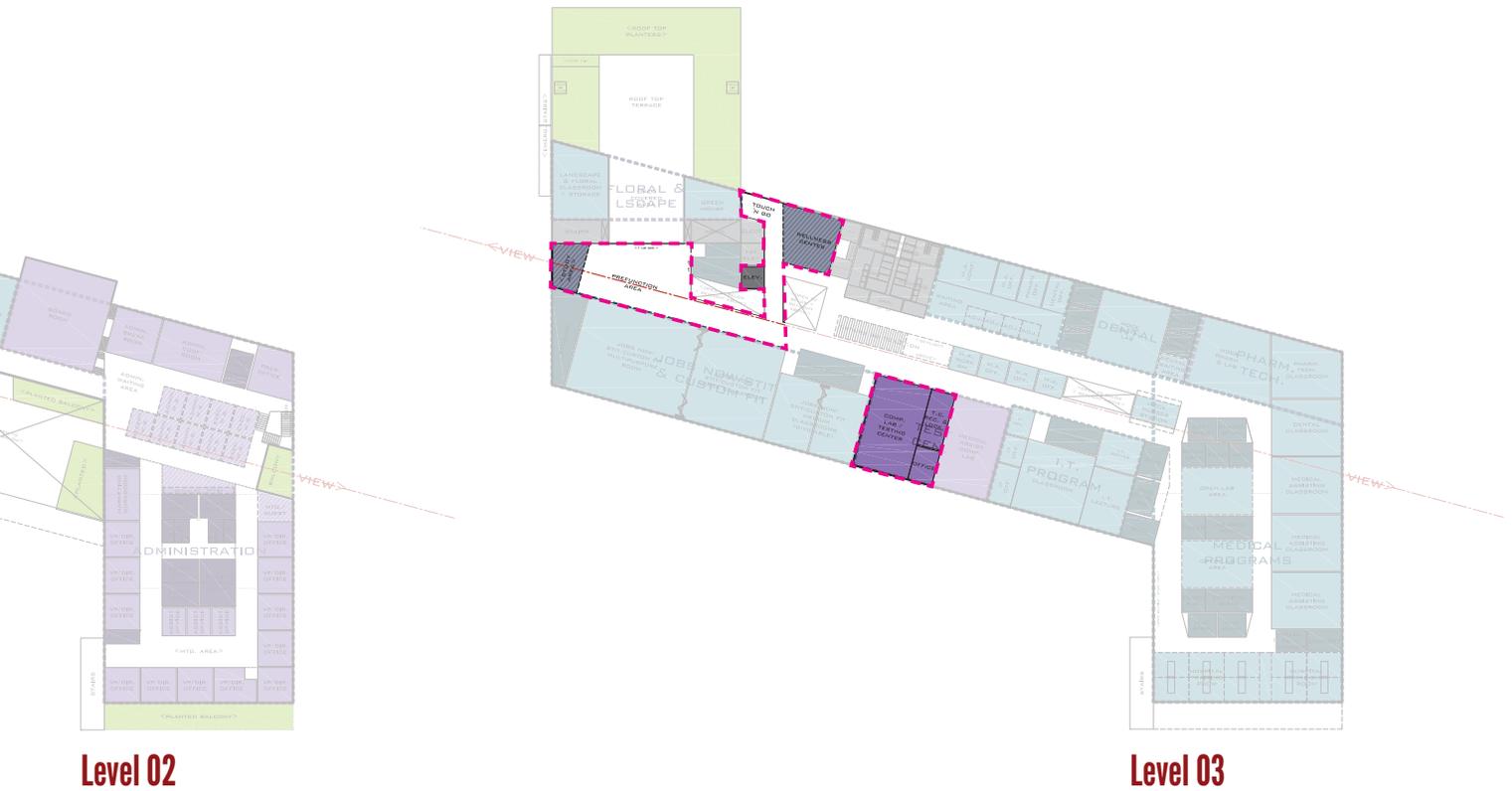
Fixture Type: LED Volumetric Lay-in or Suspended Linear

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor





Level 02

Level 03

as a changing room and private restroom have been provided to accommodate this desired flexibility. Ample ante-room space must be provided at the main entry to accommodate large groups of users coming and going all at once. Ease of way-finding is important as many users will often be experiencing the building for the first-time. The Auditorium should be located so as to conveniently serve the Event Center concept. As illustrated in the Test-Fit floor plan, connection via a conveniently located stairway to the suite of multipurpose rooms on level 3 is sufficient. While natural daylight and views aren't required, the site and location within the building could provide a unique opportunity to provide a view window above the stage (with views to unique landscapes in the distance) if a high-degree of controllability is provided. A high level of acoustic control will be required. Depending on the desired range of flexibility variable acoustics may be required – to be determined in the subsequent design phases.

Space Requirements

SPACE SUMMARY:

Type of Space:	Entry Vestibule
Number Required:	4
Total Number:	4
Occupants:	0
Area:	84 SF
Primary Function:	Controlled entry.

RELATIONSHIPS:

Location:	Level 01
Adjacencies:	Lobby.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Carpet or walk off mat.
Walls:	Glass or gypsum board.
Ceiling:	
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Glass.
Frame:	Aluminum.
Special:	None required.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
None required.

MOVEABLE FURNISHINGS:
None required.

EQUIPMENT:
None required.

Technical Requirements

MECHANICAL:

Ventilation: 7.5 CFM/person, 0.06 CFM/sq. ft. 6-10 AC/hr (Per ANSI Z9.5)

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: None required.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall.
Additional capacity for equipment listed.
2 devices

Phone/Data:

Video: None required.

Audio: None required.

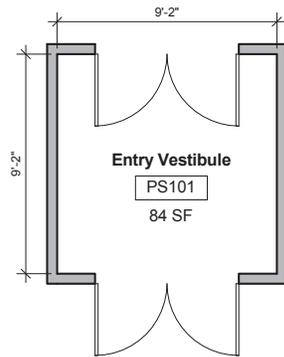
LIGHTING:

Fixture Type: T-8 or LED lay-in.

Accent Lighting: None required.

Foot Candles: 20

Controls: None required.



Space Requirements

SPACE SUMMARY:

Type of Space:	Display gallery
Number Required:	1
Total Number:	1
Occupants:	4
Area:	279 SF
Primary Function:	Display gallery and central location of information.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Lobby
Separation:	None required..

Architectural Requirements

DESIGN/AESTHETIC:
 Visually accessible, comfortable, welcoming, and natural lighting.

FINISHES:

Floor:	Tile or Sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
 None required.

DOORS:

Type:	None required.
Frame:	None required.
Special:	None required.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
 -Information and display cases.

MOVEABLE FURNISHINGS:
 -None required..

EQUIPMENT:
 -None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

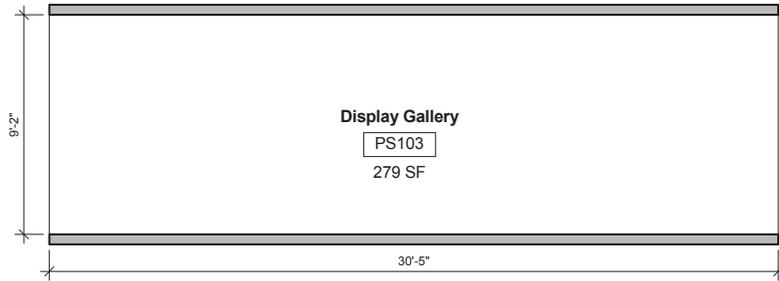
LIGHTING:

Fixture Type: T-8 or LED and/or downlights.

Accent Lighting: Walls for pictures and certificates.

Foot Candles: 20

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Study Lounge.
Number Required:	1
Total Number:	1
Occupants:	8
Area:	282 SF
Primary Function:	Tables and couches for informal studying and relaxing.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, welcoming, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	None required.
Frame:	None required.
Special:	None required.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-Couch, comfortable chair, side table, coffee table, study tables.

EQUIPMENT:
-None required.

Technical Requirements

MECHANICAL:
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

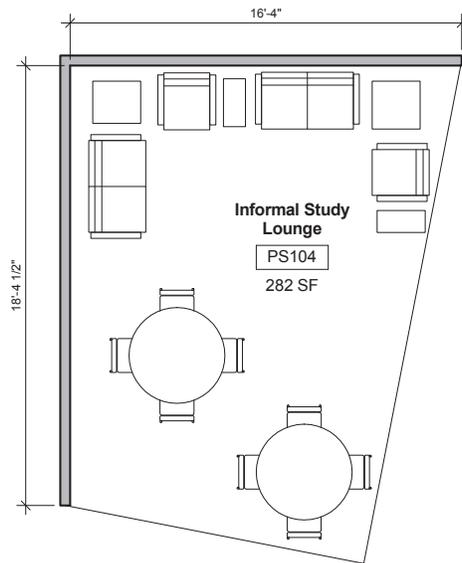
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Study Room.
Number Required:	6
Total Number:	6
Occupants:	4
Area:	103 SF
Primary Function:	Tables and chairs for private studying and meeting.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
 Visually accessible, comfortable, welcoming, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
 None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	None required.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:
 -None required.

MOVEABLE FURNISHINGS:
 -Chairs and study table.

EQUIPMENT:
 -None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
 2 devices on opposing walls.

Phone/Data:

Video: Rough-in for future capacity.

Audio: None required.

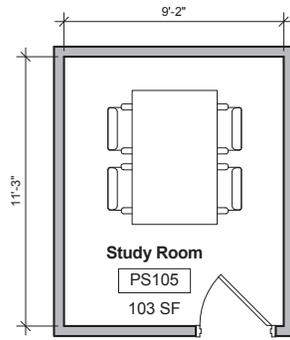
LIGHTING:

Fixture Type: T-8 or LED Lay-in Volumetric.

Accent Lighting: None required.

Foot Candles: 40

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Touch and go Zone.**Number Required:** 6**Total Number:** 6**Occupants:** 4**Area:** 64 SF**Primary Function:** Tables and chairs for private studying and meeting.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** None required.**Separation:** None required.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, welcoming, and natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: None required.**Frame:** None required.**Special:** None required.**Architectural Requirements**

WINDOWS:

Type: None required.**Glazing:** None required.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Counter top.

MOVEABLE FURNISHINGS:

-Stools.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

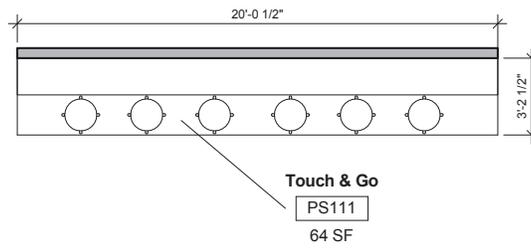
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 6 duplex receptacles above counter top. Additional capacity for equipment listed. 2 devices on opposing walls.**Phone/Data:****Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: T-8 or LED Lay-in Volumetric.**Accent Lighting:** None required.**Foot Candles:** 40**Controls:** Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Monitored Testing Room
Number Required:	1
Total Number:	1
Occupants:	24
Area:	968 SF
Primary Function:	Provide monitored and quiet area for testing at private computer stations.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Testing office, Reception and Lockers.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
Adequate privacy/security for Testing room, window for monitoring students.

DOORS:

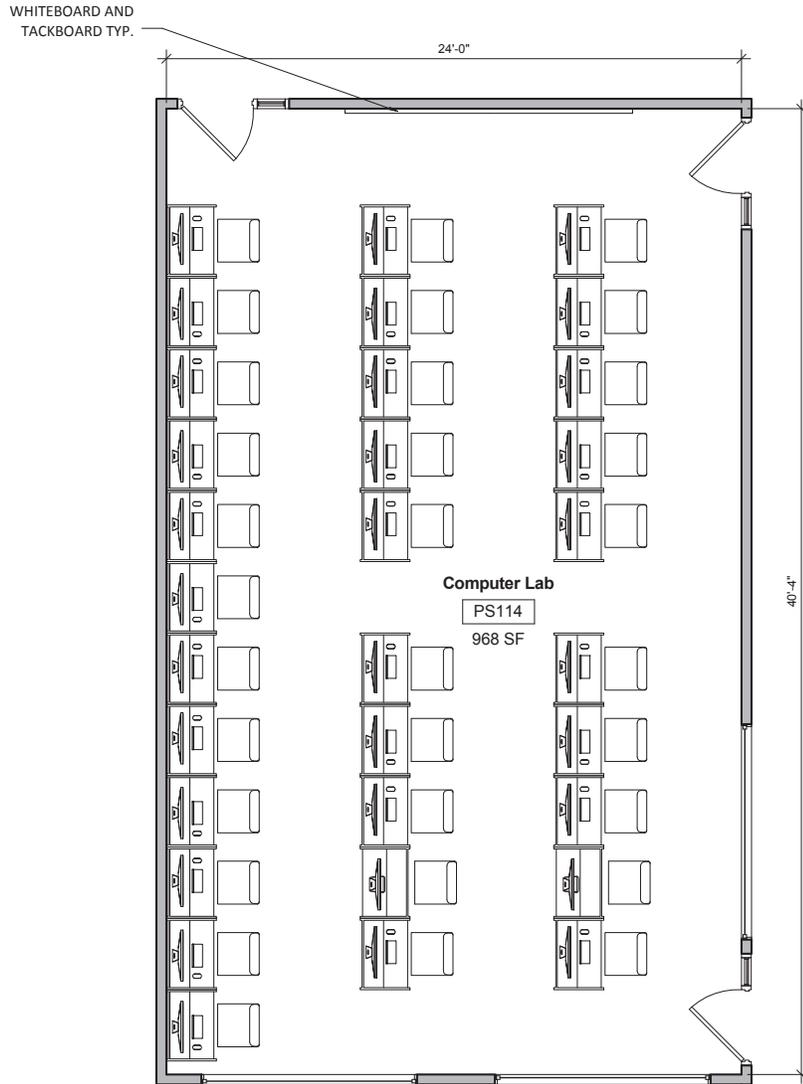
Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.
CASEWORK/FIXED EQUIPMENT:	-None required.
MOVEABLE FURNISHINGS:	-Desks and chairs.
EQUIPMENT:	-Computers; clock.

Technical Requirements

MECHANICAL:	
Ventilation:	10 CFM/person + 0.12 CFM/sq. ft.
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	30 (NC/RC)
Special Systems:	Dedicated computer A/C units.
Plumbing:	None required.
ELECTRICAL:	
Power:	2 duplex receptacle per wall. 1 duplex receptacle per computer station. Additional capacity for equipment listed.
Data:	2 devices per wall, 1 per computer station.
Phone:	2 devices per wall.
Video:	Security camera.
Audio:	None required.
LIGHTING:	
Fixture Type:	T-8 or LED Volumetric Lay-in.
Accent Lighting:	None.
Foot Candles:	40
Controls:	Vacancy Sensor, zoned, dimmable w/ preset scenes, daylighting.



Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-4
Area:	160 SF
Primary Function:	Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

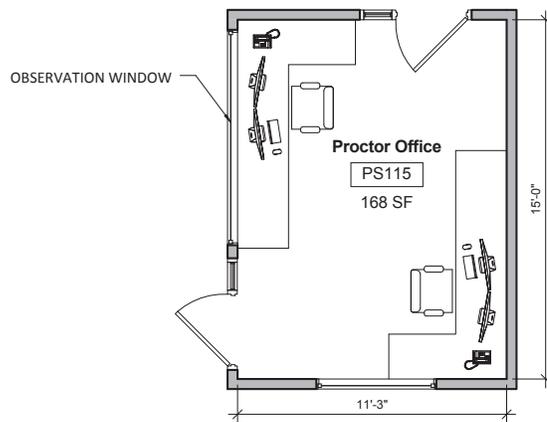
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task.

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space: Reception & lockers

Number Required: 1

Total Number: 1

Occupants: 28

Area: 276 SF

Primary Function: Provide secure admittance and sign-in to testing center; provide individual storage for testing individuals.

RELATIONSHIPS:

Location: Level 3

Adjacencies: Testing room.

Separation: None required.

Architectural Requirements

DESIGN/AESTHETIC:

Practical, serviceable, durable, with plenty of light.

FINISHES:

Floor: Carpet or polished/sealed concrete.

Walls: Painted gypsum board.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

Preliminary security for Testing room; roll down door above standing counter.

DOORS:

Type: Metal rolling door.

Frame: Painted aluminum with glazed sidelite.

Special: Lockable.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Wall mounted shelving; lockable lateral files; work surface.
 -24 lockers.

MOVEABLE FURNISHINGS:

-Staff rolling chair.

EQUIPMENT:

-Computer; Monitor; Phone; Trash can.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. 1 duplex receptacle per computer station. Additional capacity for equipment listed.

Phone/Data: 1 device at computer station.

Video: None required.

Audio: None required.

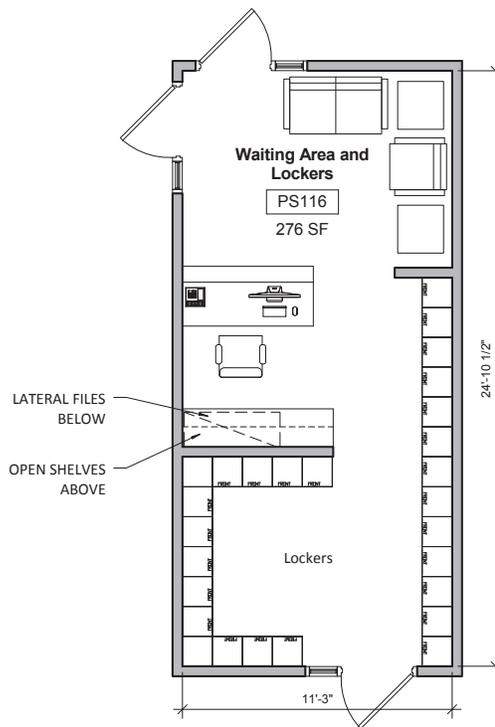
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Bookstore sales and cashwrap.
Number Required:	1
Total Number:	1
Occupants:	18
Area:	632 SF
Primary Function:	Provide a warm and friendly environment for retail sales.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Cashier, bookstore manager office, receiving and storage.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Warm and friendly environment.

FINISHES:

Floor:	Static-Free Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

Ability to lock doors during closing hours.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	None required.

Architectural Requirements

WINDOWS:

Type:	Interior.
Glazing:	Clear glazing.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-Retail fixtures.

EQUIPMENT:

-Computer; printer/scanner; cash register; credit card reader.

Technical Requirements

MECHANICAL:

Ventilation: 10 CFM/person + 0.12 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall. 2 four-plex receptacles at checkout.

Phone/Data: 2 devices at checkout.

Video: None required.

Audio: None required.

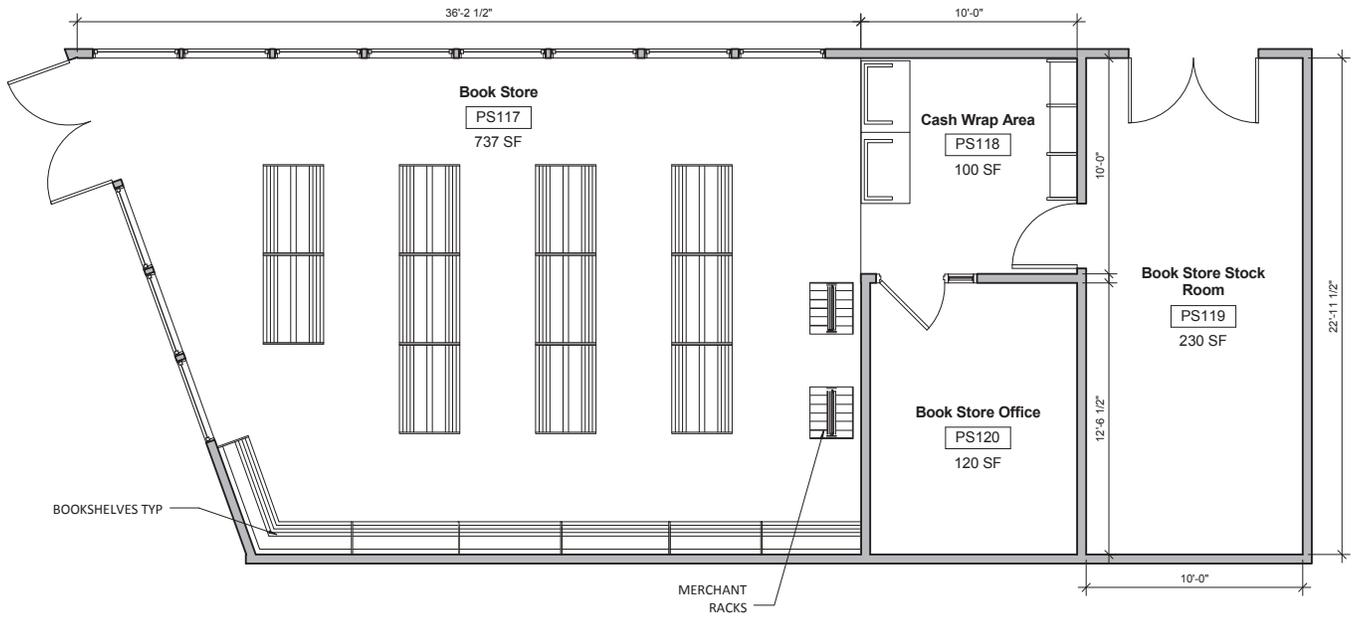
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Track lighting at displays.

Foot Candles: 40

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Storage

Number Required: 1

Total Number: 1

Occupants: 1

Area: 151 SF

Primary Function: To provide receiving and storage area for product overstock items.

RELATIONSHIPS:

Location: Level 1

Adjacencies: Bookstore; manager office.

Separation: None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Practical, serviceable, durable.

FINISHES:

Floor: Carpet or polished/sealed concrete.

Walls: Painted gypsum board.

Ceiling: Painted gypsum board

Specialty Finishes: None required.

Sound: None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

Ability to lock doors during closing hours.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: None required.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:

-Wall mounted shelving; lateral filing cabinets.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall.

Phone/Data: Rough-in for future capacity.

Video: None required.

Audio: None required.

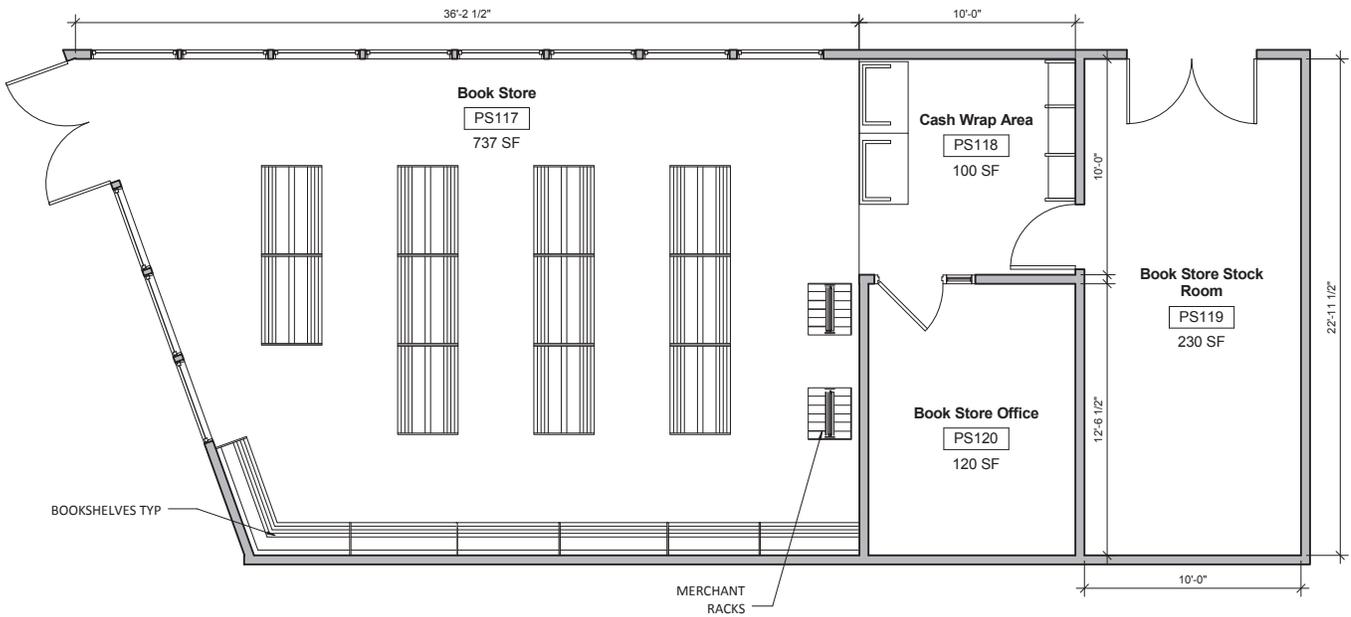
LIGHTING:

Fixture Type: T-8 or LED Lay-in.

Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Secure safe room & office.
Number Required:	1
Total Number:	1
Occupants:	1-4
Area:	125 SF
Primary Function:	Provide safe to secure particular items and provide day-to-day workspace for manager.

RELATIONSHIPS:

Location:	Level 1
Adjacencies:	Bookstore sales, storage.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
 Practical, serviceable, durable, secure.

FINISHES:

Floor:	Carpet or polished/sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

Ability to lock doors when not in use.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	None required.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
 -Wall mounted shelving; work surface.

MOVEABLE FURNISHINGS:
 -Task chair.

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system; safe.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

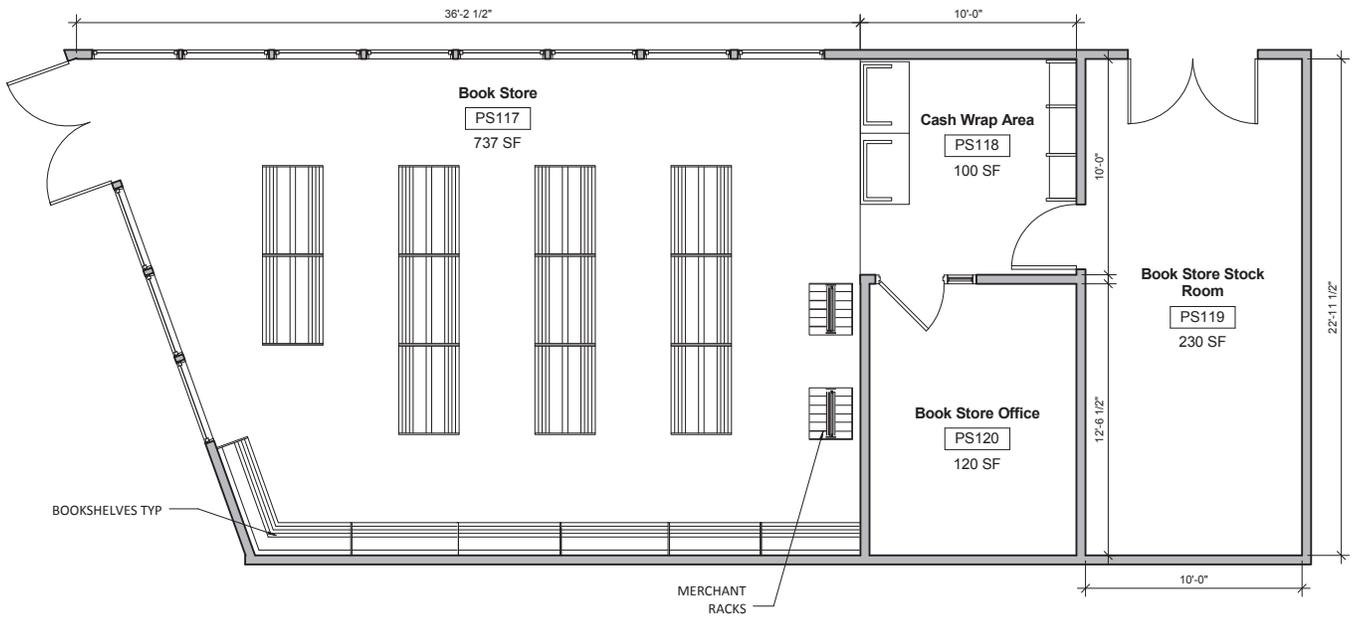
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Kitchen.
Number Required:	1
Total Number:	1
Occupants:	1
Area:	1759 SF
Primary Function:	Provide a specialized instructional environment with commercial kitchen for teaching.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Freezer, storage, cooler, culinary department.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Durable finishes, inviting feel.

FINISHES:

Floor:	Ceramic Tile or other hard, durable surface.
Walls:	Ceramic Tile or other hard, durable surface.
Ceiling:	Vinyl faded suspended 2'x2' ACT
Specialty Finishes:	None required.
Sound:	Full sound construction.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

Sealed off at closing with a moving partition or roll down door.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	Interior.
Glazing:	Clear.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Counter area with lockable base cabinets; hand sinks and food prep sinks.

MOVEABLE FURNISHINGS:

-Prep tables; shelving.

EQUIPMENT:

-See the Food Services Design Criteria in section 04 (building requirements) of this document for the extensive food services equipment list.

Technical Requirements

MECHANICAL:

Ventilation: .7 CFM/sq. ft. Negative pressure.

Summer Design Temp: 80 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: Grease hood exhaust and welded 16 GA exhaust duct.

Plumbing:

Plumbing: 140 F hose to sinks and dishwasher, grease interceptor.

ELECTRICAL:

Power: Receptacles as required for equipment. GFI receptacles in food prep areas, floor dedicated receptacles as needed.

Data: None required.

Phone: 1 device at entry.

Video: A/V system with internet connection.

Audio: None required.

LIGHTING:

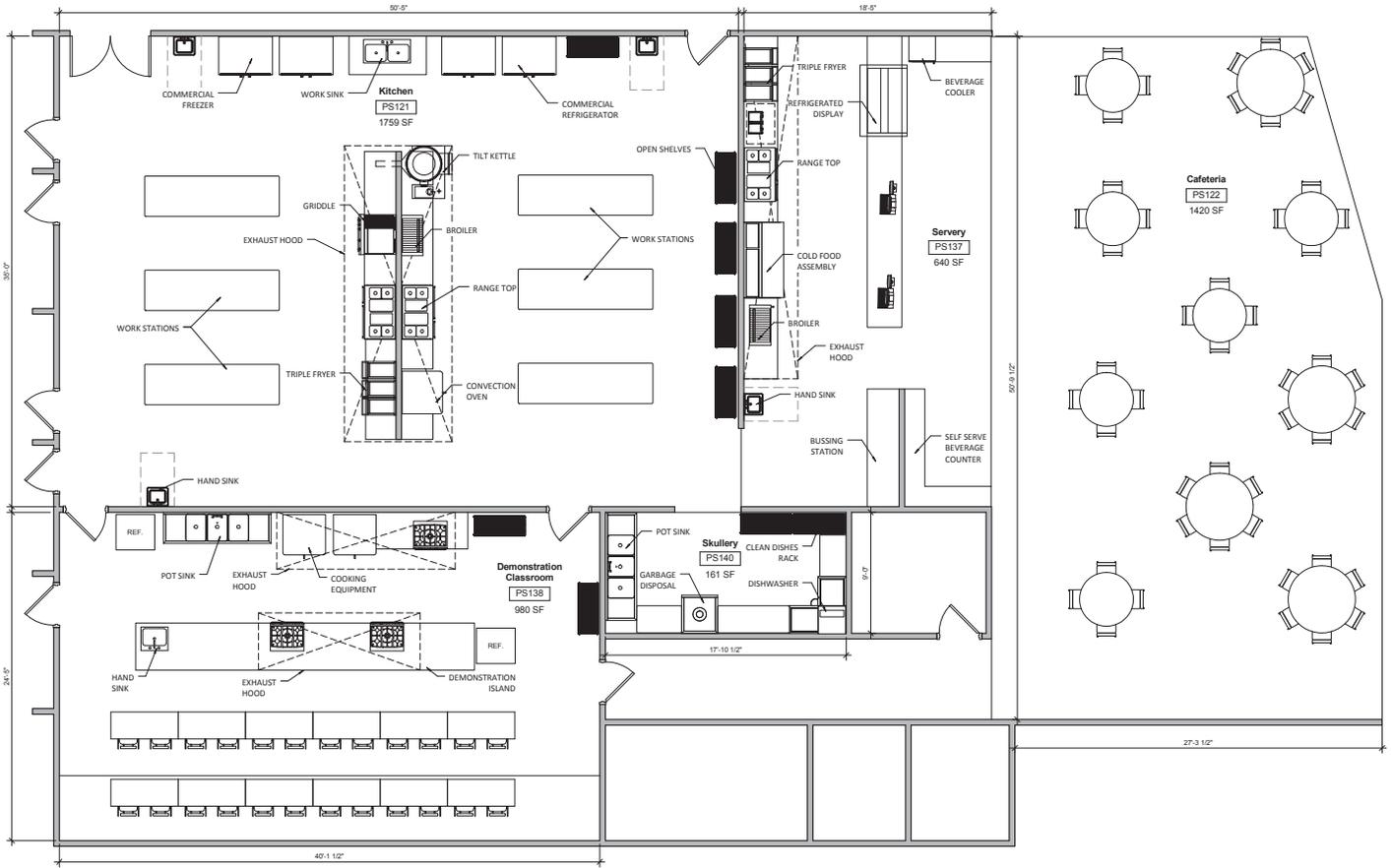
Fixture Type: T-8 or LED Lay-in Volumetric.

Accent Lighting: Task lighting at work surface.

Foot Candles: 50

VCP: 70

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Cafeteria.
Number Required:	1
Total Number:	1
Occupants:	48
Area:	1603 SF
Primary Function:	Provide an inviting and comfortable atmosphere for dining.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Kitchen.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Durable finishes, inviting feel.

FINISHES:

Floor:	Hard durable surface.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Full sound construction.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0"

PRIVACY/SECURITY:

High visibility, no additional security required.

DOORS:

Type:	None required.
Frame:	None required.
Special:	None required.

Architectural Requirements

WINDOWS:

Type:	Exterior; interior.
Glazing:	Insulated Low-E; Clear.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-Round tables, stackable chairs.

EQUIPMENT:

-Cash register, cafe equipment.

Technical Requirements

MECHANICAL:

Ventilation: 7.5 CFM/person + 0.18 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall. Additional capacity for equipment listed.

Phone/Data: 1 devices per wall.

Video: None required.

Audio: None required.

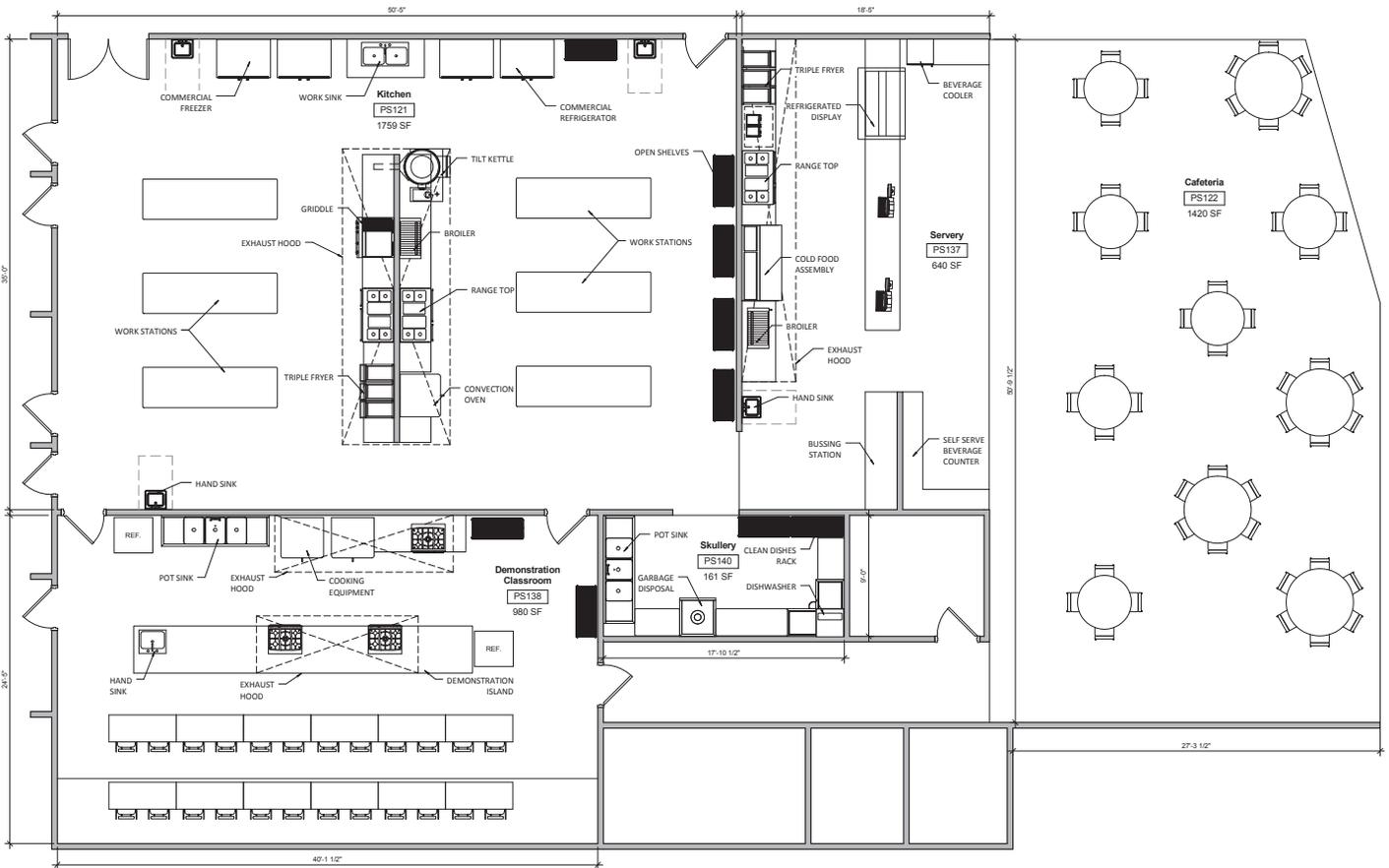
Fixture Type: T-8 or LED Lay-in Volumetric.

Accent Lighting: LED

Foot Candles: 20

VCP: 70

Controls: Vacancy Sensor, daylighting.



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	0
Area:	146 SF
Primary Function:	To provide storage for dry goods.

RELATIONSHIPS:

Location:	Level 1
Adjacencies:	Kitchen.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Durable finishes.

FINISHES:

Floor:	VCT or hard, durable surface with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Wall mounted shelving.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-See the Food Services Design Criteria in section 04 (building requirements) of this document for the extensive food services equipment list.

Technical Requirements

MECHANICAL:

Ventilation: 0.12 CFM/person (min.) 100% exhaust.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 quad receptacles at workbench, 2 duplex receptacles on each wall.
None required.

Phone/Data: None required.

Video: None required.

Audio: None required.

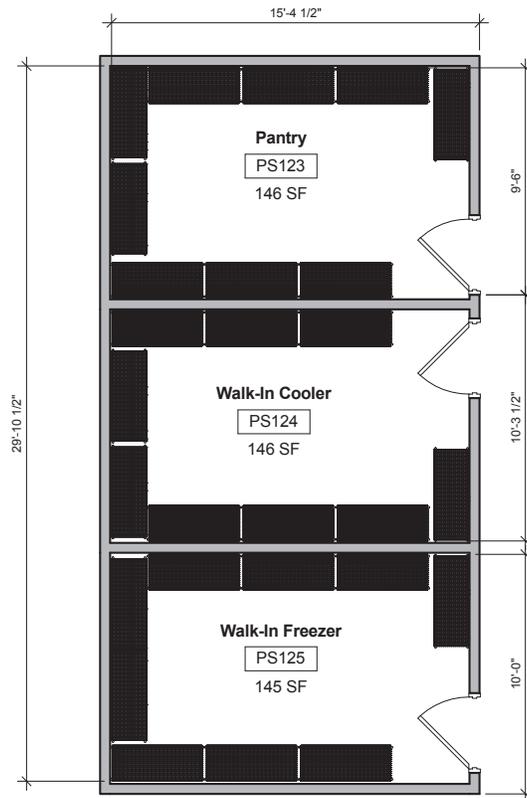
Fixture Type: T-8 or LED Lay-in.

Accent Lighting: None required.

Foot Candles: 20

VCP: 70

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Freezer/cooler
Number Required:	2
Total Number:	2
Occupants:	0
Area:	146 SF each.
Primary Function:	To provide a space for storing frozen or perishable food.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Kitchen.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Durable finishes.

FINISHES:

Floor:	Metal.
Walls:	Metal.
Ceiling:	Metal.
Specialty Finishes:	None required.
Sound:	Full sound construction.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:

Auto locking door with emergency latch on interior.

DOORS:

Type:	Hollow metal.
Frame:	Painted aluminum.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:

-Metal shelving.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-See the Food Services Design Criteria in section 04 (building requirements) of this document for the extensive food services equipment list.

Technical Requirements

MECHANICAL:

Ventilation: None.

Summer Design Temp: 35 F Cooler / 0 F Freezer

Winter Design Temp: 35 F Cooler / 0 F Freezer

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: Freezer.

Plumbing: Indirect floor sink.

ELECTRICAL:

Power: As required for equipment.

Phone/Data: None required.

Video: None required.

Audio: None required.

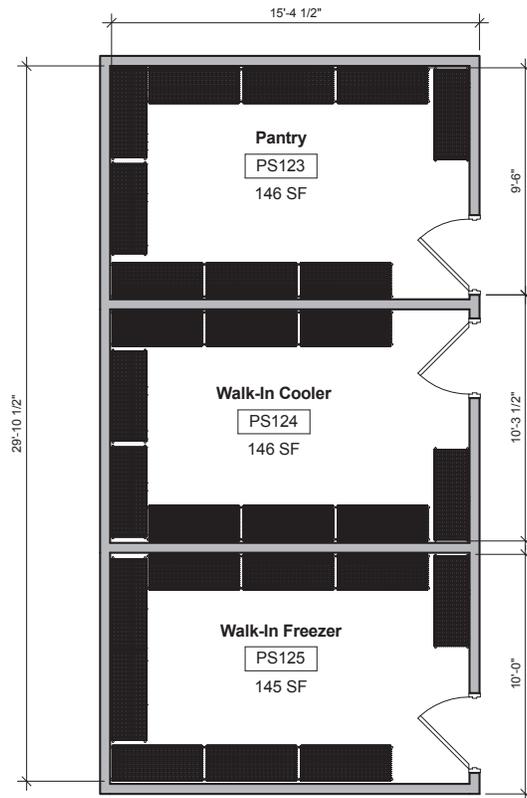
Fixture Type: LED.

Accent Lighting: None required.

Foot Candles: 20

VCP: 70

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Office.

Number Required: 1

Total Number: 1

Occupants: 1-4

Area: 150 SF

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 1

Adjacencies: Kitchen.

Separation: None required.

Architectural Requirements

DESIGN/AESTHETIC:

Practical, serviceable, durable, comfortable, opennes..

FINISHES:

Floor: Tile or polished/sealed concrete.

Walls: Durable surface.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

Private office with lockable door.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

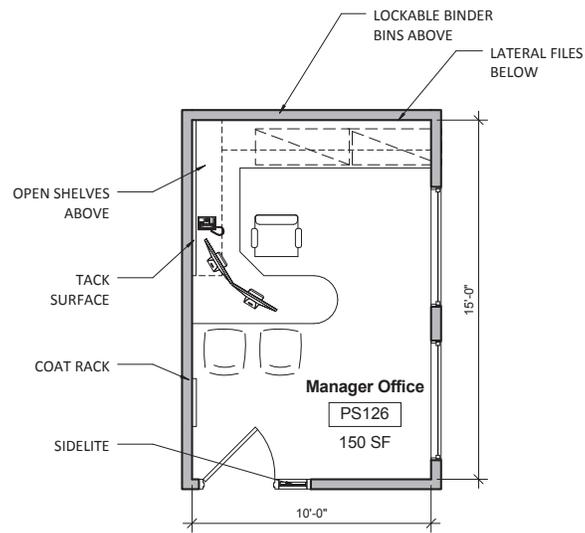
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space:	Coffee kiosk.
Number Required:	1
Total Number:	1
Occupants:	1
Area:	80 SF
Primary Function:	Provide space for coffee kiosk (Starbucks) equipment and service.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Kitchen. Cafeteria.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, functional, bright.

FINISHES:

Floor:	Ceramic tile.
Walls:	Painted gypsum board with backsplash at sink.
Ceiling:	Painted gypsum board.
Specialty Finishes:	Low dust.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Rolling metal door closed after closing.
Frame:	None required.
Special:	None required.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:

-Cabinets, counter top.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-See the Food Services Design Criteria in section 04 (building requirements) of this document for the extensive food services equipment list.

Technical Requirements

MECHANICAL:

Ventilation: 20 CFM/person.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: Sink; Water, waste and vent.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

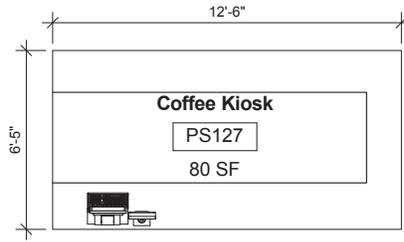
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: None required.

Foot Candles: 20 Ambient / 40 at Workspace

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Break room

Number Required: 1

Total Number: 1

Occupants: 1

Area: 300 SF

Primary Function: Furniture for dining and relaxing. Kitchen and food prep for faculty and small group functions.

RELATIONSHIPS:

Location: Level 1

Adjacencies: None required.

Separation: None required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting, functional, bright.

FINISHES:

Floor: Porcelain tile.

Walls: Painted gypsum board with backsplash at sink.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: Insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: Desired.

CASEWORK/FIXED EQUIPMENT:

-Upper and lower cabinets, counter top.

MOVEABLE FURNISHINGS:

-48" round tables with chairs, 3-4 lounge chairs, couch, coffee table.

EQUIPMENT:

-Microwave, large refrigerator with ice maker, small tack board, fire extinguisher.

Technical Requirements

MECHANICAL:

Ventilation: 20 CFM/person.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: Double sink; Water, waste and vent.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
2 devices on opposing walls.

Phone/Data:

Video: None required.

Audio: None required.

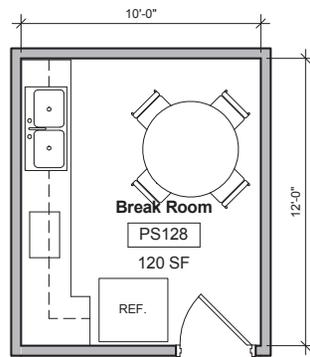
LIGHTING:

Fixture Type: T-8 or LED Lay-in Volumetric.

Accent Lighting: None LED under upper cabinet..

Foot Candles: 40

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Exercise room
Number Required:	1
Total Number:	1
Occupants:	1-4
Area:	333 SF
Primary Function:	Space for exercise/stretching.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	Locker rooms/showers.
Separation:	Quiet spaces.

Architectural Requirements

DESIGN/AESTHETIC:
Functional, bright.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Ceiling fan.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desired.

CASEWORK/FIXED EQUIPMENT:

-Coat/towel rack.

MOVEABLE FURNISHINGS:

-Chairs, padded weight bench, exercise mats.

EQUIPMENT:

-Flat screen TV (wall mounted); treadmill; stationary bike; elliptical or stair machine; small weight set.

Technical Requirements

MECHANICAL:

Ventilation: 20 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

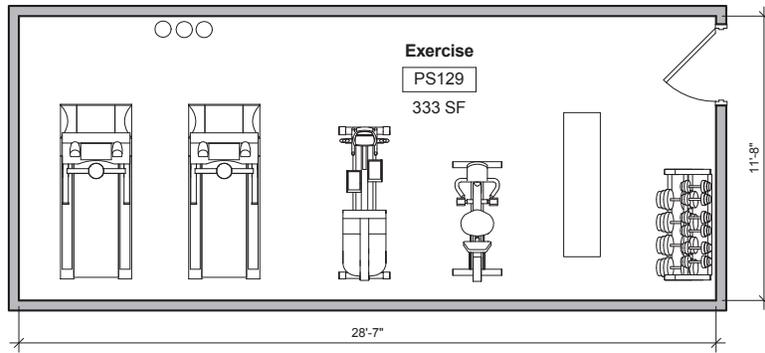
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: None required.

Foot Candles: 20-30

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Quiet room
Number Required:	1
Total Number:	1
Occupants:	1-2
Area:	200 SF
Primary Function:	Space for nursing.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	Restroom.
Separation:	Quiet spaces.

Architectural Requirements

DESIGN/AESTHETIC:
Functional, bright.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
Private room with locking door.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desired.

CASEWORK/FIXED EQUIPMENT:
-Counter top; cabinets.

MOVEABLE FURNISHINGS:
-Chairs, side tables.

EQUIPMENT:
-None required.

Technical Requirements

MECHANICAL:
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: Sink, water, waste.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

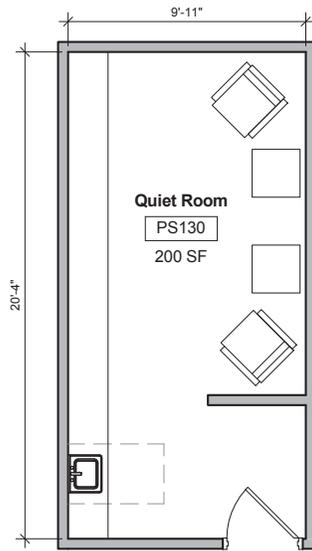
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Under upper cabinets.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Restroom

Number Required: 1

Total Number: 1

Occupants: 1-2

Area: 75 SF

Primary Function:

RELATIONSHIPS:

Location: -

Adjacencies: None required.

Separation: -

Architectural Requirements

DESIGN/AESTHETIC:

FINISHES:

Floor: Porcelain tile, slope to floor drain

Walls: Ceramic tile

Ceiling: Painted gypsum board.

Specialty Finishes: None required.

Sound: Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: None desired.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None desired.

Technical Requirements

MECHANICAL:

Ventilation: 1 CFM/sq. ft. 100% Exhaust.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 40 (NC/RC)

Special Systems: 5 min. air exchange exhaust.

Plumbing: Wall hung flush valve water closet, wall hung lavatory, floor drain, water, waste, and venting.

ELECTRICAL:

Power: 4 GFCI duplex outlet per wall.

Phone/Data: None required.

Video: None required.

Audio: None required..

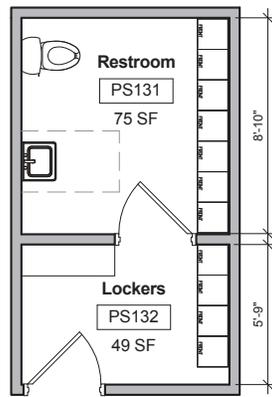
LIGHTING:

Fixture Type: T-8 or LED and/or downlights.

Accent Lighting: None required.

Foot Candles: 30

Controls: Occupancy Sensor.



Programming Requirements >> AUDITORIUM

Program Support

Space Requirements

SPACE SUMMARY:

Type of Space: Auditorium.

Number Required: 1

Total Number: 1

Occupants:

Area: 6800 SF

Primary Function:

RELATIONSHIPS:

Location: Level 01, Level 02

Adjacencies: Sound lock, projection room, pre-function area.

Separation: Insulated walls and ceilings for sound.

Architectural Requirements

DESIGN/AESTHETIC:

FINISHES:

Floor:

Walls:

Ceiling:

Specialty Finishes:

Sound: STC 65+ walls, Shaped walls, Shaped ceiling, sound locks/vestibules.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY: General security considerations

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound Isolation.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: None desired.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls

Sound Criteria: 35 (NC/RC)

Special Systems: Surround Sound

Plumbing: None required.

ELECTRICAL:

Power: Large format projector and 16:9 or 16:10 format screen, HDBaseT, HDCP compliant video distribution system, Bluray DVD Player, inputs for portable computers, integrated control system for controlling audio, video and lighting.

Phone/Data:

Video:

Audio: Point source with delay speakers & stage monitors, ALS, various mics, DSP, power amplifiers.

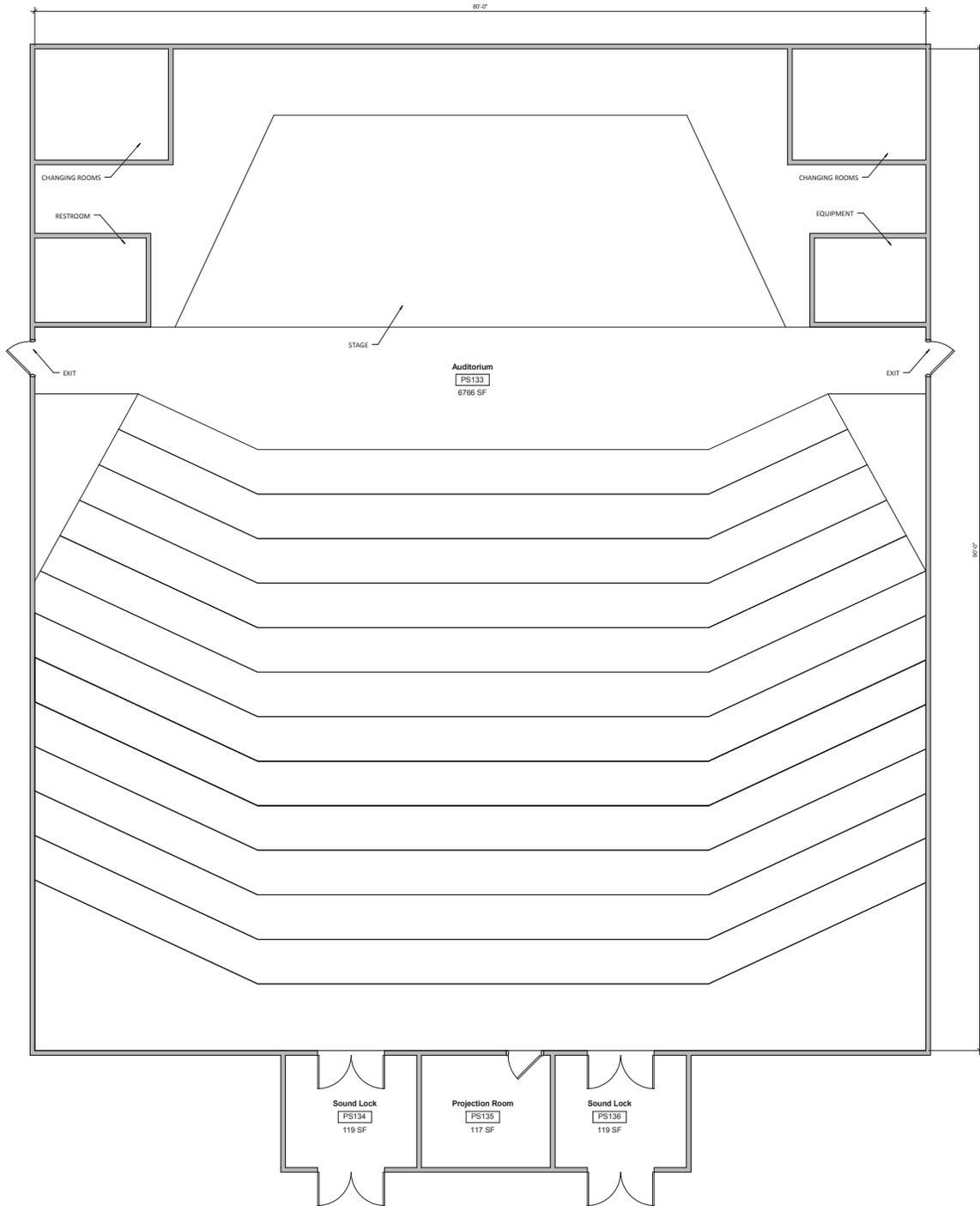
LIGHTING:

Fixture Type:

Accent Lighting: Dimming task lights.

Foot Candles: 50, >90 CRI

Controls: Vacancy sensor.



Programming Requirements >> OPEN VENDING

Program Support

Space Requirements

SPACE SUMMARY:

Type of Space:	Open Vending Area
Number Required:	1
Total Number:	1
Occupants:	0
Area:	129 SF
Primary Function:	Provide space for vending machines. .

RELATIONSHIPS:

Location:	Level 2
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Ceramic Tile
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	None required.
Frame:	None required.
Special:	None required.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-None required.

EQUIPMENT:
-Vending machines.

Technical Requirements

MECHANICAL:

Ventilation: .5 CFM/person min.

Summer Design Temp: 75 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: Floor drains; water; waste & venting.

ELECTRICAL:

Power: 1 GFCI duplex outlet per machine.

Phone/Data: 1 data device per machine.

Video: None required.

Audio: None required.

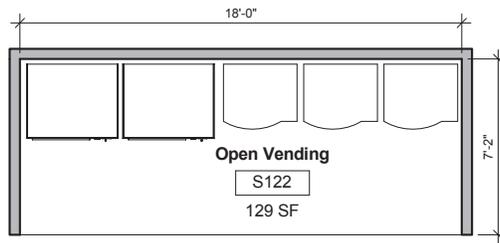
LIGHTING:

Fixture Type: T-8 or LED and/or downlights.

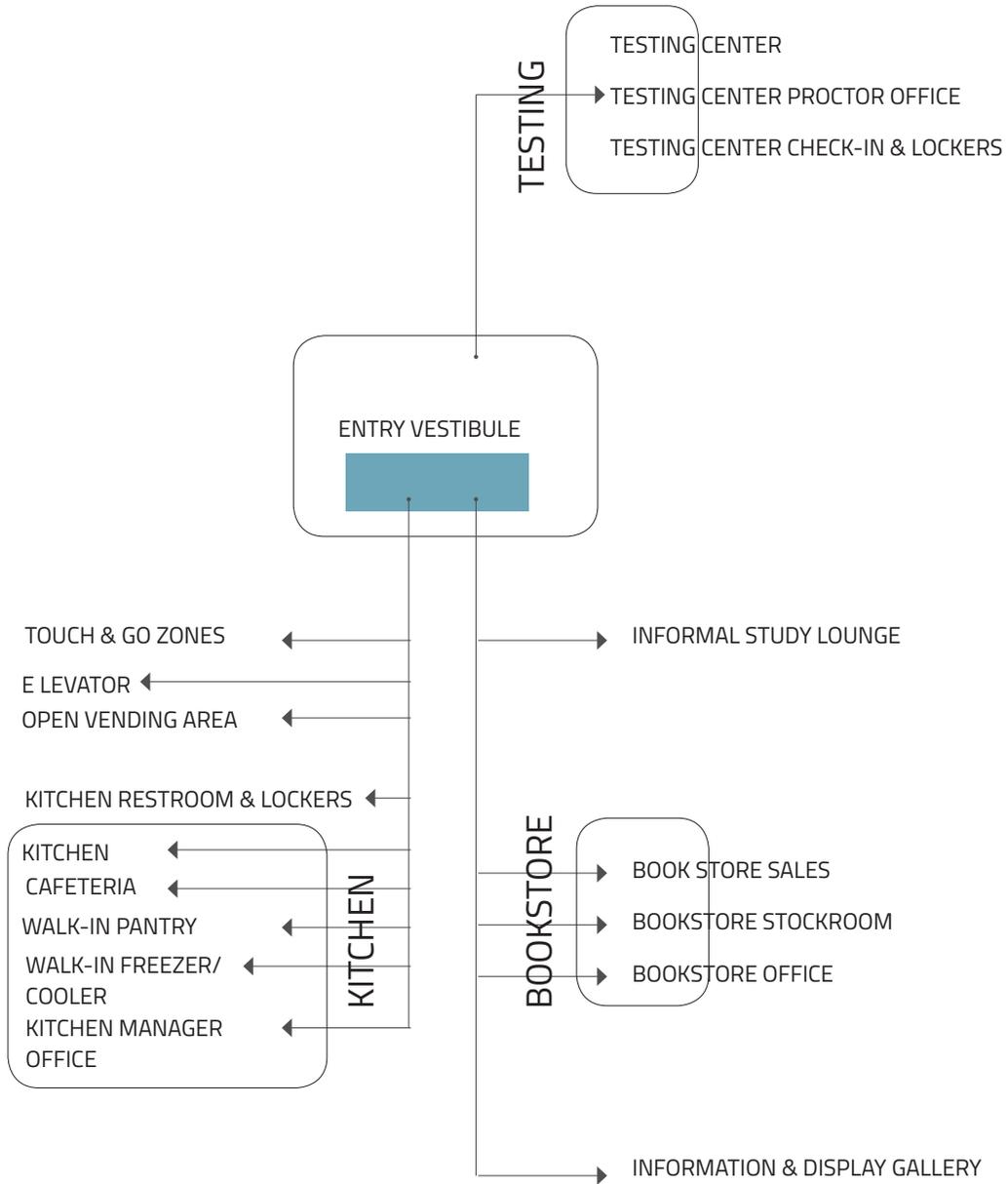
Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy Sensor.



Adjacency Diagram >>
Student Services



Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-6
Area:	222 SF
Primary Function:	Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	None Required.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Mandatory.

CASEWORK/FIXED EQUIPMENT:
-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:
-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:
-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

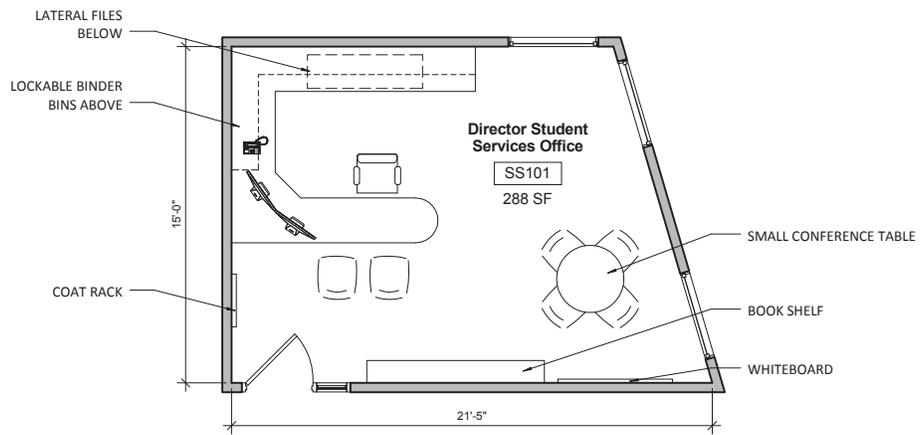
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task.

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-4
Area:	160 SF
Primary Function:	Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	None Required.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Mandatory.

CASEWORK/FIXED EQUIPMENT:
-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:
-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:
-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

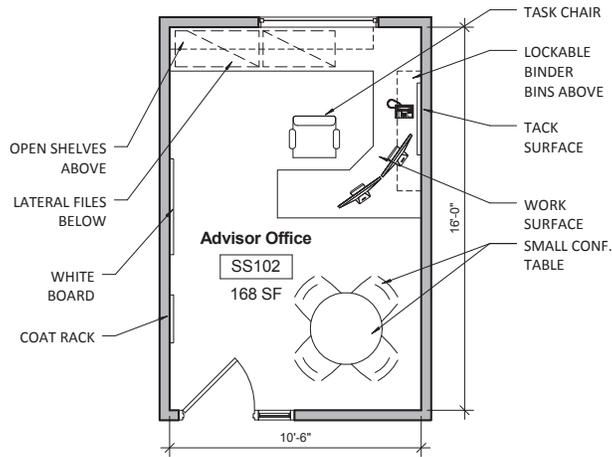
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task.

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space: Office.**Number Required:** 1**Total Number:** 1**Occupants:** 1-4**Area:** 160 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 1**Adjacencies:** None Required.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.**PRIVACY/SECURITY:**
None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: Exterior.**Glazing:** Low-E.**Natural Light:** Mandatory.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

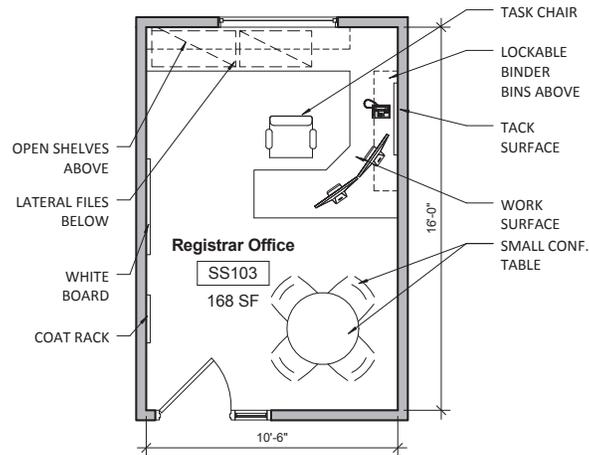
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40-50 Task.**Controls:** Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space: Office.**Number Required:** 1**Total Number:** 1**Occupants:** 1-4**Area:** 160 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 1**Adjacencies:** None Required.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Painted gypsum board.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.**PRIVACY/SECURITY:**
None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: Exterior.**Glazing:** Low-E.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

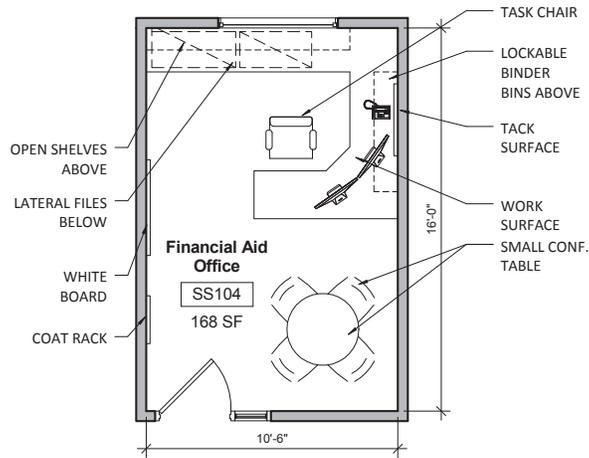
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40-50 Task.**Controls:** Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space: Office.**Number Required:** 1**Total Number:** 1**Occupants:** 1-3**Area:** 120 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 1**Adjacencies:** None Required.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.**PRIVACY/SECURITY:**
None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: Exterior.**Glazing:** Low-E.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

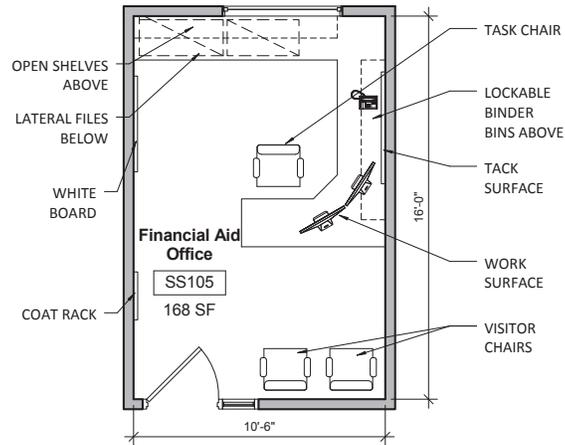
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40-50 Task.**Controls:** Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space: Office.

Number Required: 1

Total Number: 1

Occupants: 1-6

Area: 225 SF

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 1

Adjacencies: None Required.

Separation: Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Painted gypsum board.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

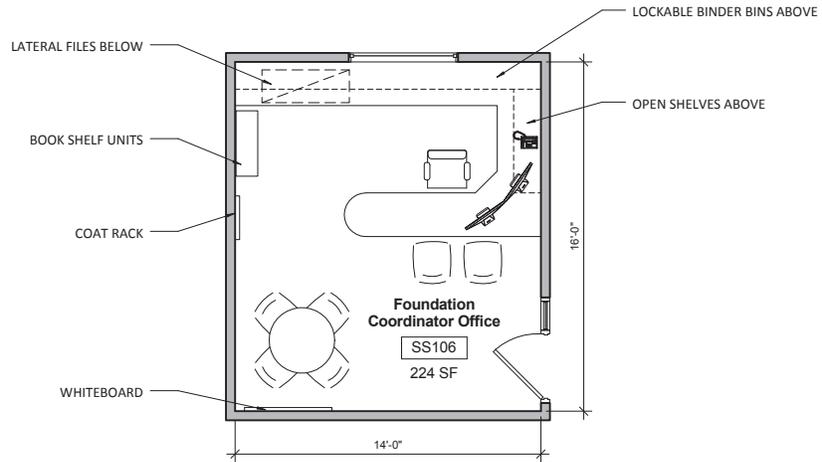
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task.

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-4
Area:	160 SF
Primary Function:	Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	None Required.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
2 devices on opposing walls.

Phone/Data:

Video: Rough-in for future capacity.

Audio: None required.

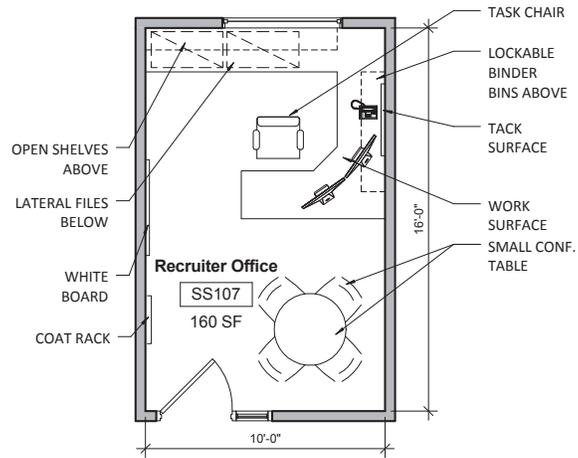
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task.

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space: Host room.

Number Required: 1

Total Number: 1

Occupants: 1

Area: 200 SF

Primary Function: Furniture for dining and relaxing. Kitchen and food prep for faculty and small group functions.

RELATIONSHIPS:

Location: Level 1

Adjacencies: Recruiter office.

Separation: None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting, functional, bright.

FINISHES:

Floor: Porcelain tile.

Walls: Painted gypsum board with backsplash at sink.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: Insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Upper and lower cabinets, counter top.

MOVEABLE FURNISHINGS:

-48" round tables with chairs, 3-4 lounge chairs, couch, coffee table.

EQUIPMENT:

-Microwave, large refrigerator with ice maker, small tack board, fire extinguisher.

Technical Requirements

MECHANICAL:

Ventilation: 20 CFM/person.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: Double sink; Water, waste and vent.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
2 devices on opposing walls.

Phone/Data:

Video: None required.

Audio: None required.

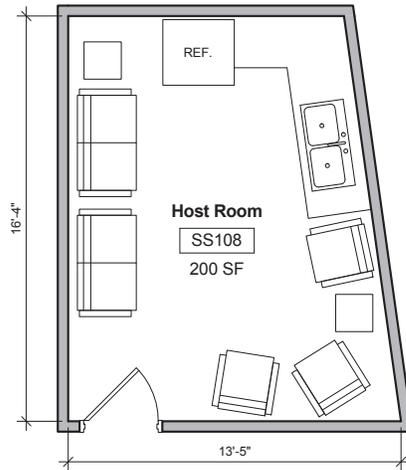
LIGHTING:

Fixture Type: T-8 or LED Lay-in Volumetric.

Accent Lighting: None required.

Foot Candles: 40

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Reception / Waiting
Number Required:	1
Total Number:	1
Occupants:	8
Area:	254 SF
Primary Function:	Reception work area / waiting area.

RELATIONSHIPS:

Location:	Level 1
Adjacencies:	Student services offices.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, welcoming, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF):	10'-0" Min.
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PRIVACY/SECURITY:
None required.

DOORS:

Type:	None required.
Frame:	None required.
Special:	None required.

Architectural Requirements

WINDOWS:

Type:	None required.
Glazing:	None required.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Reception desk.

MOVEABLE FURNISHINGS:

-Staff chair, couch, comfortable chair, side table, coffee table.

EQUIPMENT:

-Computer; phone.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

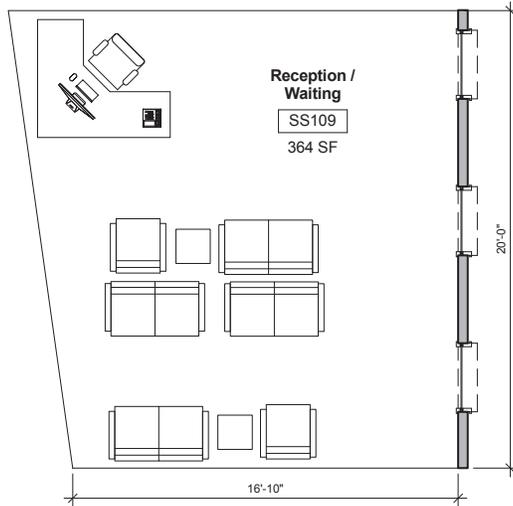
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: 2 walls for pictures and certificates.

Foot Candles: 20 Ambient / 40 at work surface.

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Cashier
Number Required:	1
Total Number:	1
Occupants:	3
Area:	300 SF
Primary Function:	Cash registers for student services.

RELATIONSHIPS:

Location:	Level 1
Adjacencies:	Student services.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, welcoming, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF):	10'-0" Min.
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PRIVACY/SECURITY:

None required.

DOORS:

Type:	Rolling doors above windows.
Frame:	None required.
Special:	None required.

Architectural Requirements

WINDOWS:

Type:	Interior service.
Glazing:	Clear.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Counters, desks,.

MOVEABLE FURNISHINGS:

-Staff chairs, storage.

EQUIPMENT:

-Computer; cash registers, safe.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

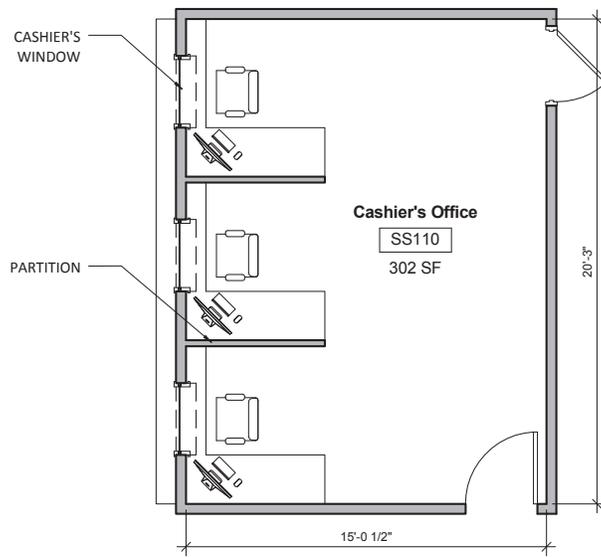
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: 2 walls for pictures and certificates.

Foot Candles: 20 Ambient / 40 at work surface.

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Secure cashier count room.
Number Required:	1
Total Number:	1
Occupants:	1
Area:	120 SF
Primary Function:	To provide secure storage for cashiers.

RELATIONSHIPS:

Location:	Level 1
Adjacencies:	Cashiers office; student services.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Warm; clean lines; strength; open with security.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

Lockable and secure count room.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets., safe.

MOVEABLE FURNISHINGS:

-Work table.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

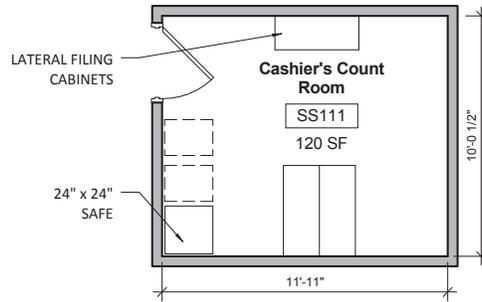
LIGHTING:

Fixture Type: T-8 or LED Lay-in Volumetric.

Accent Lighting: None required.

Foot Candles: 40

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Secure storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	120 SF
Primary Function:	To provide secure storage for records.

RELATIONSHIPS:

Location:	Level 1
Adjacencies:	Student services.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Warm; clean lines; strength; open with security.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:

None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

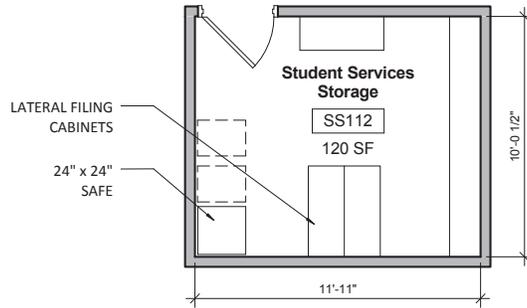
LIGHTING:

Fixture Type: T-8 For LED Lay-in.

Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Conference Room

Number Required: 1

Total Number: 1

Occupants: 20

Area: 596 SF

Primary Function: Private and professional conference area, equipped to accommodate and display all current technology formats.

RELATIONSHIPS:

Location: Level 1

Adjacencies: Student services offices.

Separation: None required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-Large table; 6 chairs; whiteboard; media chart.

EQUIPMENT:

-60" LCD, conference telephone.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

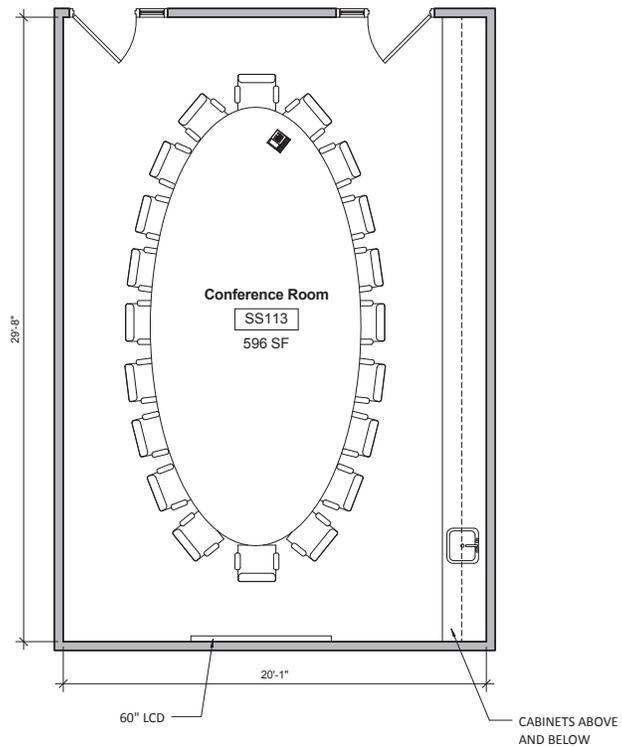
Power: 1 duplex receptacle per wall. 2 floor-plex floor box under table. Additional capacity for equipment listed.

Phone/Data: 1 devices on opposing walls. 1 floor box under table.

Video: A/V system with internet connection.

Audio: Speaker with volume control.

LIGHTING:	
Fixture Type:	LED directional video conference Lay-in & decorative.
Accent Lighting:	LED
Foot Candles:	50
Controls:	Vacancy Sensor, Daylighting w/ continuous dimming, preset scene dimming controller.



Space Requirements

SPACE SUMMARY:

Type of Space:	Secure storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	248 SF
Primary Function:	To provide secure storage for files and records.

RELATIONSHIPS:

Location:	Level 1
Adjacencies:	Student services.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Warm; clean lines; strength; open with security.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF):	10'-0" Min.
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PRIVACY/SECURITY:

None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation:	5 CFM/person + 0.06 CFM/sq. ft.
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Summer Design Temp:	72 F
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Winter Design Temp:	72 F
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Controls:	Individual direct digital controls.
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Sound Criteria:	35 (NC/RC)
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Special Systems:	None required.
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Plumbing:	None required.
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ELECTRICAL:

Power:	2 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.

Video:	None required.
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Audio:	None required.
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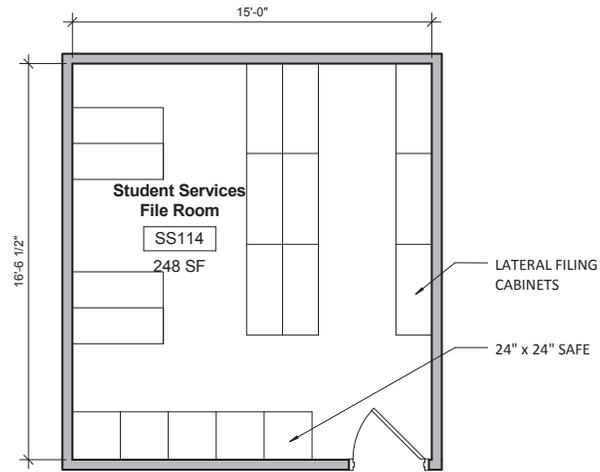
LIGHTING:

Fixture Type:	T-8 or LED Lay-in Volumetric.
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Accent Lighting:	None required.
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Foot Candles:	20
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Controls:	Vacancy Sensor.
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Space Requirements

SPACE SUMMARY:

Type of Space:	Unisex restroom
Number Required:	2
Total Number:	2
Occupants:	1
Area:	100 SF
Primary Function:	Private administration restroom.

RELATIONSHIPS:

Location:	Level 1
Adjacencies:	Student services offices.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Porcelain tile, slope to floor drain.
Walls:	Ceramic tile.
Ceiling:	Painted Gyp. Board.
Specialty Finishes:	None required.
Sound:	Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Water closet; lavatory; mirror; grab bars; dispensers; waste receptacles, shower, lockers.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 1 CFM/sq. ft. 100% Exhaust.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 40 (NC/RC)

Special Systems: 5 min. air exchange exhaust.

Plumbing: Wall hung flush valve water closet; wall hung lavatory; shower; floor drain; water, waste, and venting;

ELECTRICAL:

Power: 1 GFCI duplex outlet per wall.

Phone/Data: None required.

Video: None required.

Audio: None required.

LIGHTING:

Fixture Type: T-8 or LED and/or downlights.

Accent Lighting: Required at mirrors.

Foot Candles: 30

Controls: Occupancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Workroom

Number Required: 1

Total Number: 1

Occupants: 1-2

Area: 240 SF

Primary Function: Adequate equipment and counter space for copying, printing, and document assembly.

RELATIONSHIPS:

Location: Level 1

Adjacencies: None Required.

Separation: None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, and natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Upper and lower cabinets; counter top; whiteboard; tack board.

MOVEABLE FURNISHINGS:

-Work table, chair.

EQUIPMENT:

-Computer; 2 monitors; printers; label maker; copy machine; desktop speaker phone; paper shredder; fax machine.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
2 devices on opposing walls.

Phone/Data:

Video: Rough-in for future capacity.

Audio: None required.

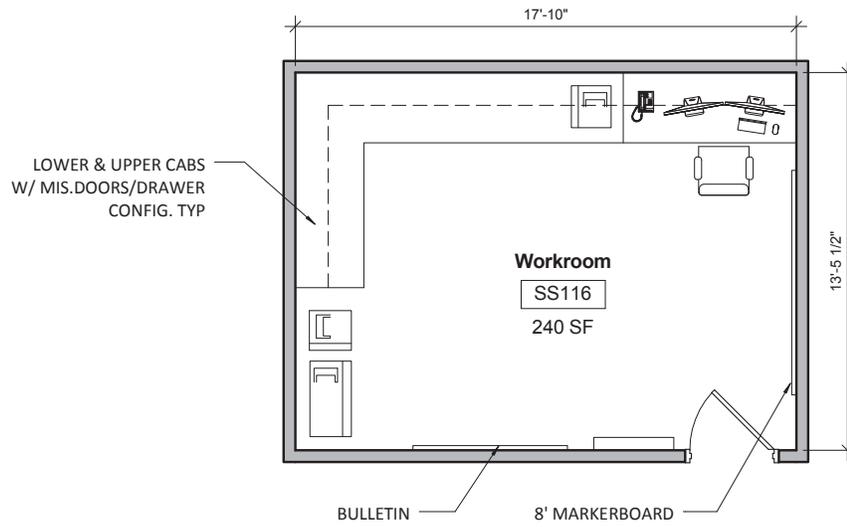
LIGHTING:

Fixture Type: T-8 or LED Lay-in Volumetric.

Accent Lighting: LED under upper cabinet.

Foot Candles: 40

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Break room

Number Required: 1

Total Number: 1

Occupants: 6'-8"

Area: 200 SF

Primary Function: Furniture for dining and relaxing. Kitchen and food prep for faculty and small group functions.

RELATIONSHIPS:

Location: Level 1

Adjacencies: None required.

Separation: None required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting, functional, bright.

FINISHES:

Floor: Porcelain tile.

Walls: Painted gypsum board with backsplash at sink.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: Insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: None desired.

CASEWORK/FIXED EQUIPMENT:

-Upper and lower cabinets, counter top.

MOVEABLE FURNISHINGS:

-48" round tables with chairs, 3-4 lounge chairs, couch, coffee table.

EQUIPMENT:

-Microwave, large refrigerator with ice maker, small tack board, fire extinguisher.

Technical Requirements

MECHANICAL:

Ventilation: 20 CFM/person.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: Double sink; Water, waste and vent.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
2 devices on opposing walls.

Phone/Data:

Video: Rough-in for future capacity.

Audio: None required.

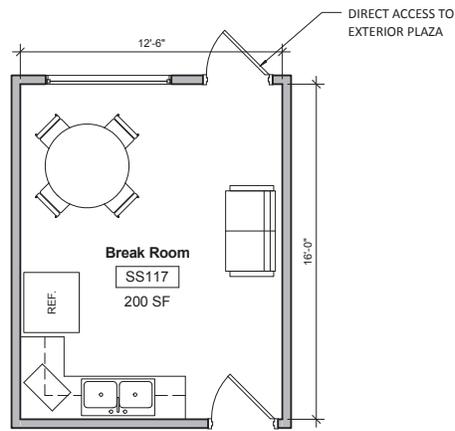
LIGHTING:

Fixture Type: T-8 or LED Lay-in Volumetric.

Accent Lighting: LED under upper cabinet.

Foot Candles: 40

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Unisex restroom
Number Required:	1
Total Number:	1
Occupants:	1
Area:	100 SF
Primary Function:	Secure restroom for drug testing and security functions.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Direct visual connection to security office.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Porcelain tile, slope to floor drain.
Walls:	Ceramic tile.
Ceiling:	Painted gypsum board.
Specialty Finishes:	None required.
Sound:	Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Water closet; lavatory; mirror; grab bars; dispensers; waste receptacles, shower, lockers.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 1 CFM/sq. ft. 100% Exhaust.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 40 (NC/RC)

Special Systems: 5 min. air exchange exhaust.

Plumbing: Wall hung flush valve water closet; wall hung lavatory; shower; floor drain; water, waste, and venting;

ELECTRICAL:

Power: 1 GFCI duplex outlet per wall.

Phone/Data: None required.

Video: None required.

Audio: None required.

LIGHTING:

Fixture Type: T-8 or LED and/or downlights.

Accent Lighting: Required at mirrors.

Foot Candles: 30

Controls: Occupancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Reception / Waiting
Number Required:	1
Total Number:	1
Occupants:	4-5
Area:	154 SF
Primary Function:	Reception work area / waiting area for security purposes.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Security office; security restroom.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, welcoming, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	None required.
Frame:	None required.
Special:	None required.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-Couch, comfortable chair, side table, coffee table.

EQUIPMENT:
-Computer;

Technical Requirements

MECHANICAL:
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

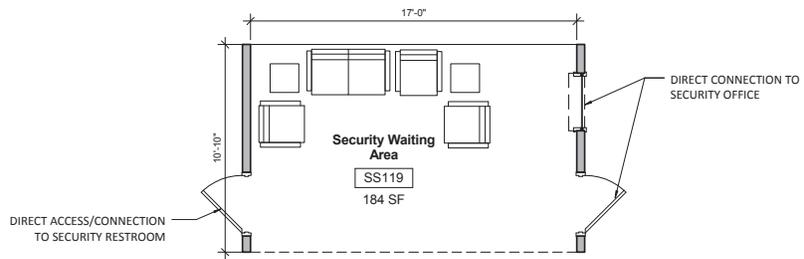
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: 2 walls for pictures and certificates.

Foot Candles: 20 Ambient

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Security office.
Number Required:	1
Total Number:	1
Occupants:	1-4
Area:	160 SF
Primary Function:	Day-to-day operations and security for the building.
RELATIONSHIPS:	
Location:	Level 1.
Adjacencies:	Security waiting area, security restroom.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Painted gypsum board.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:
-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:
-Computer; Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

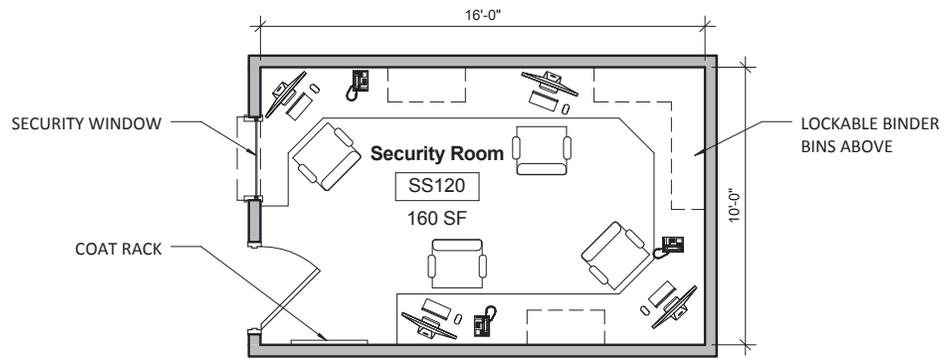
LIGHTING:

Fixture Type: T-8 or LED Lay-in Volumetric.

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy Sensor, Daylighting.



Space Requirements

SPACE SUMMARY:

Type of Space: Office.

Number Required: 1

Total Number: 1

Occupants: 1-4

Area: 225 SF

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 1

Adjacencies: IT server room.

Separation: Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Painted gypsum board.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
2 devices on opposing walls.

Phone/Data:

Video: Rough-in for future capacity.

Audio: None required.

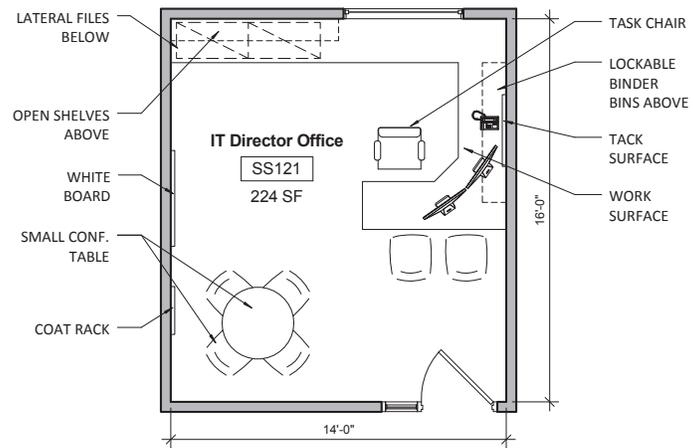
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space: Office.

Number Required: 1

Total Number: 1

Occupants: 1-3

Area: 120 SF

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2

Adjacencies: IT Director Office, IT server room.

Separation: Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Painted gypsum board.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
2 devices on opposing walls.

Phone/Data:

Video: Rough-in for future capacity.

Audio: None required.

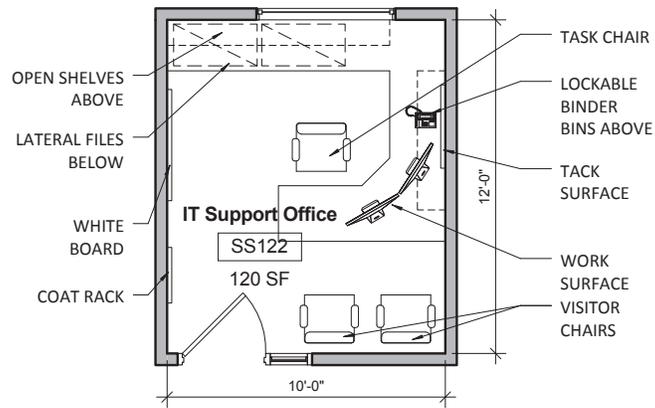
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage/workroom
Number Required:	1
Total Number:	1
Occupants:	1
Area:	300 SF
Primary Function:	To provide storage for IT department, work area for IT staff., and accommodate servers.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	IT Director office.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Painted gypsum board
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets, open shelves, 24"x24" safe, storage for servers.

MOVEABLE FURNISHINGS:

-Desk/work table; staff chair.

EQUIPMENT:

-Computer, phone, printer.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
2 devices on opposing walls.

Phone/Data:

Video: None required.

Audio: None required.

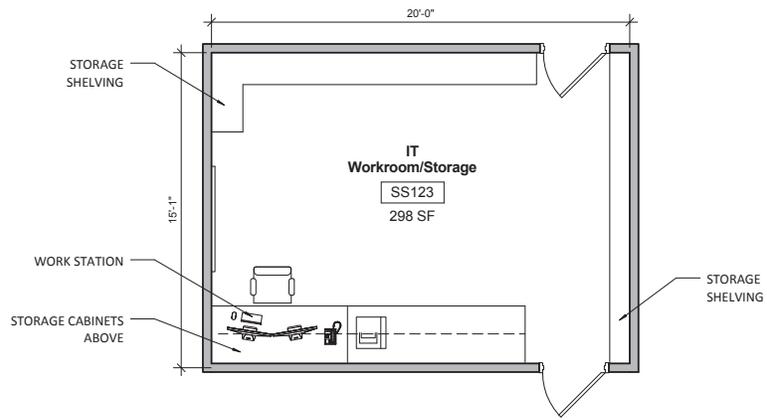
LIGHTING:

Fixture Type: T-8 or LED Lay-in Volumetric.

Accent Lighting: LED under upper cabinet.

Foot Candles: 50

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	IT Server room.
Number Required:	1
Total Number:	1
Occupants:	0
Area:	151 SF
Primary Function:	Accommodate servers and central distribution for building telecommunications and data systems.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Centrally located
Separation:	Quiet areas; Main telecommunications room and closets; high traffic public areas.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Painted gypsum board.
Specialty Finishes:	None required.
Sound:	Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-See Electrical Design Criteria in the Building Requirements Section of this document for Equipment list.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 70 F

Winter Design Temp: 70 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: 5 min. air exchange exhaust.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex outlet every 10'-0", min. 2 per wall. Dedicated duplex receptacle per data rack tied into emergency power system.

Data: Data head end equipment.

Phone: 1 device minimum; D-mark for utility.

Video: None required.

Audio: None required.

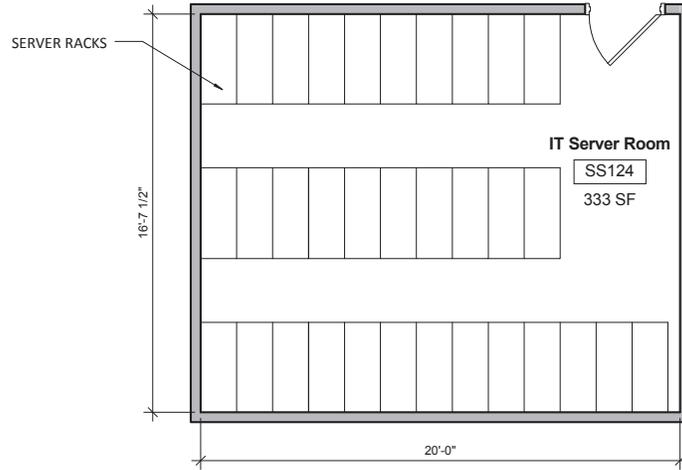
LIGHTING:

Fixture Type: T-8 or LED Lay-in striplight.

Accent Lighting: None required.

Foot Candles: 30

Controls: Manual Switch.



Space Requirements

SPACE SUMMARY:

Type of Space: Mail workroom**Number Required:** 1**Total Number:** 1**Occupants:** 1-2**Area:** 600 SF**Primary Function:** Adequate equipment and counter space for mail sorting, preparing, copying, printing, and document assembly.

RELATIONSHIPS:

Location: Level 1**Adjacencies:** Mail Pick-up Room**Separation:** None Required.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, and natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Painted gypsum board.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: None required.**Glazing:** None required.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Upper and lower cabinets; counter top; whiteboard; tack board.

MOVEABLE FURNISHINGS:

-Work tables, chair.

EQUIPMENT:

-Computer; 2 monitors; printers; label maker; copy machine; desktop speaker phone; paper shredder; fax machine.

Technical Requirements

MECHANICAL:

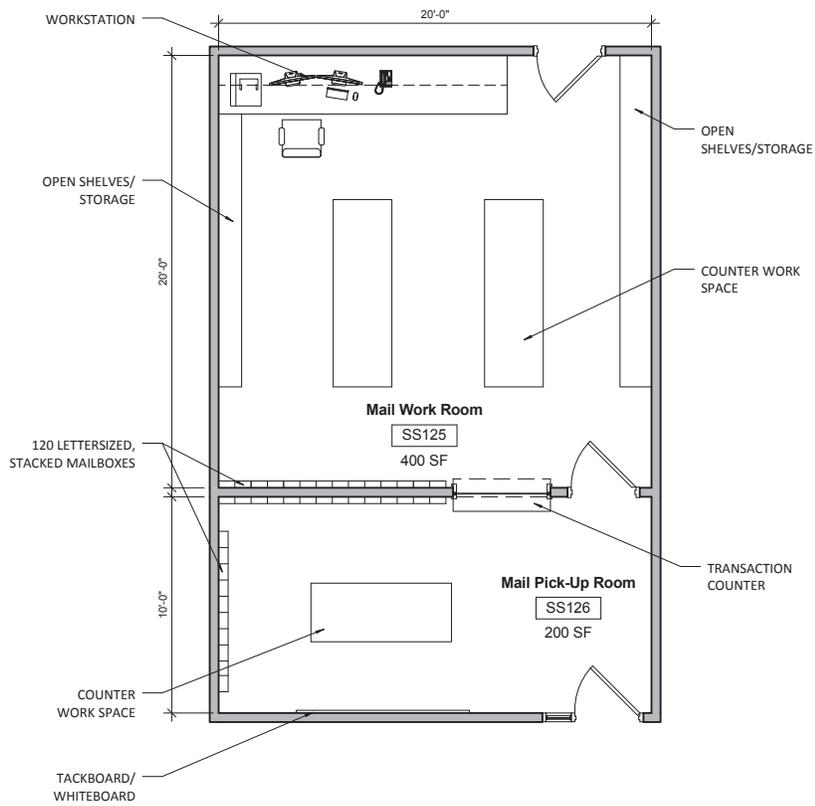
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.**Video:** None required.**Audio:** None required.

LIGHTING:

Fixture Type: T-8 or LED Lay-in Volumetric.**Accent Lighting:** LED under upper cabinet.**Foot Candles:** 40**Controls:** Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Mail pick-up room.
Number Required:	1
Total Number:	1
Occupants:	1-2
Area:	160 SF
Primary Function:	Mail delivery to faculty and staff.

RELATIONSHIPS:

Location:	Level 1
Adjacencies:	Mail Room
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Painted gypsum board.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Secure mailboxes.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
2 devices on opposing walls.

Phone/Data:

Video: None required.

Audio: None required.

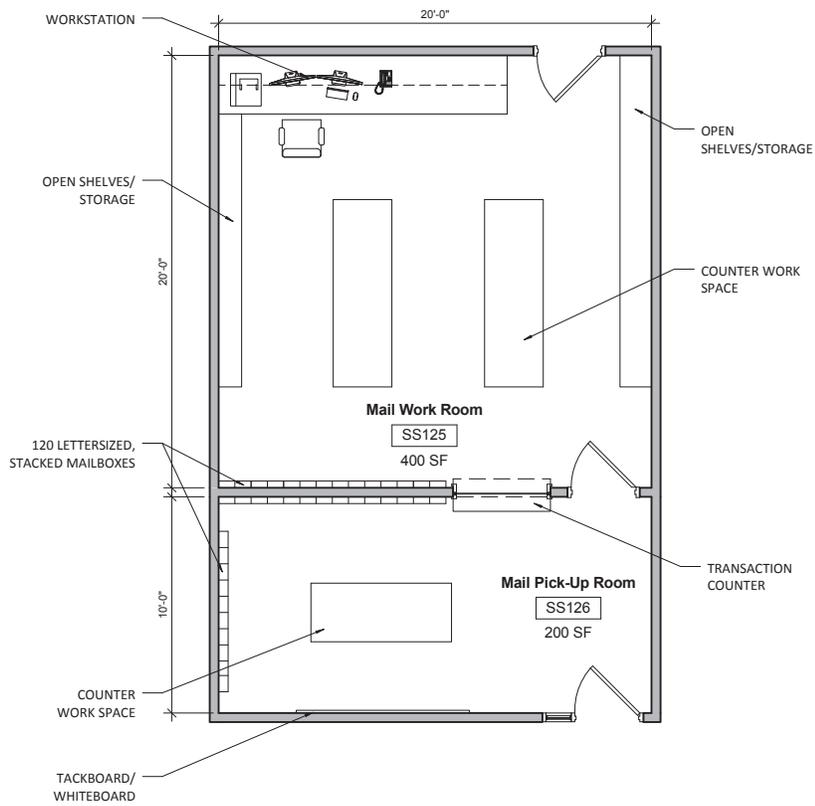
LIGHTING:

Fixture Type: T-8 or LED Lay-in Volumetric.

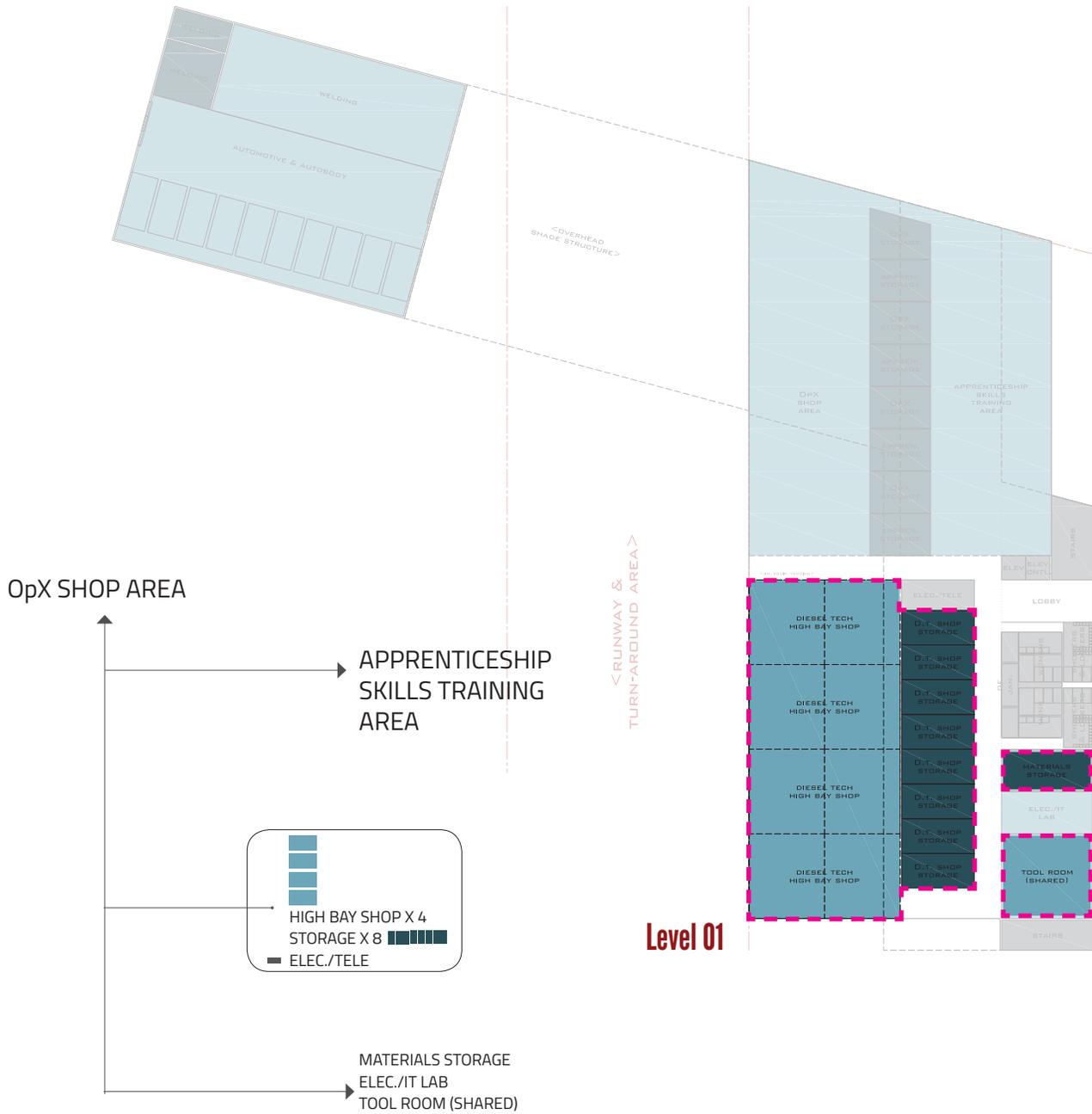
Accent Lighting: None required.

Foot Candles: 40

Controls: Vacancy Sensor.



<< Programming Requirements



Programming Requirements >> CLASSROOM

Diesel Technology

Space Requirements

SPACE SUMMARY:

Type of Space:	Classroom
Number Required:	2
Total Number:	2
Occupants:	24
Area:	720 SF
Primary Function:	Teaching / learning wide range of Diesel technology classes.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Inviting, invigorating, flexible.

FINISHES:

Floor:	Carpet or sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
Interior windows with blinds.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation..

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter top; white board; tack board.

MOVEABLE FURNISHINGS:

-24 student desks/chairs; instructor desk/chair

EQUIPMENT:

-2 computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall and at instructor station. Floor outlets at student desks. Additional capacity for equipment listed.

Data: 2 devices on opposing walls and at instructor station. 1 wireless airport. Additional capacity for equipment listed.

Phone: 2 devices on opposing walls and at instructor station.

Video: A/V system with internet connection.

Audio: Speakers with volume control.

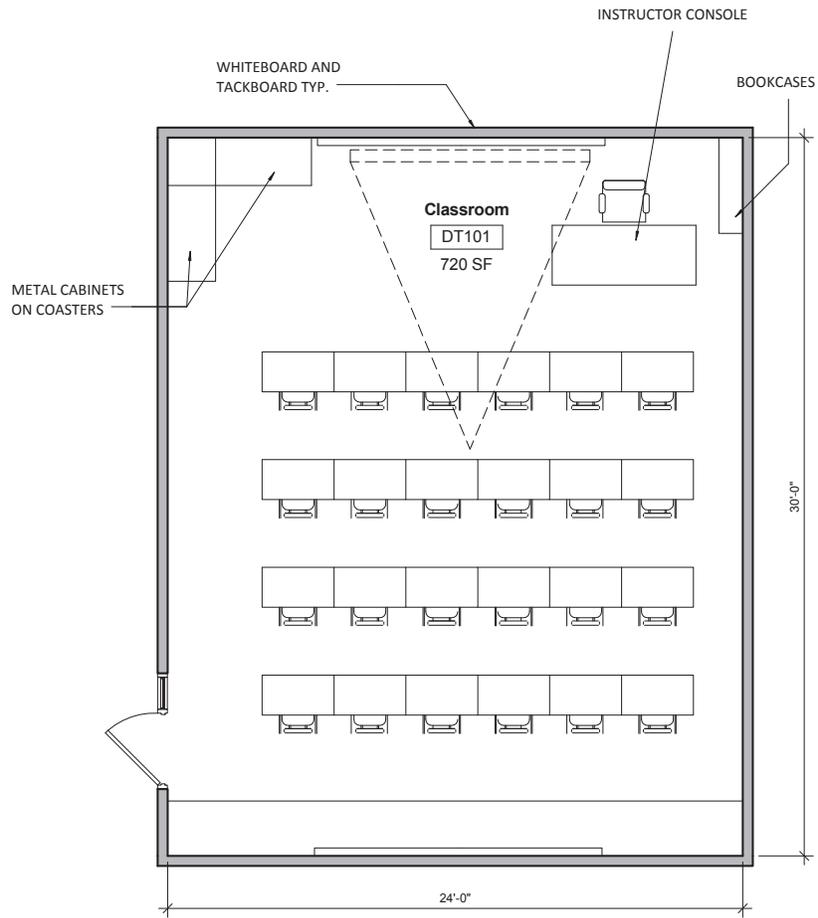
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy Sensor, zoned, dimmable w/ preset scenes, daylighting.



Space Requirements

SPACE SUMMARY:

Type of Space:	Computer lab
Number Required:	1
Total Number:	1
Occupants:	24
Area:	840 SF
Primary Function:	Individual computer work stations.

RELATIONSHIPS:

Location:	Level 2
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF):	10'-0" Min.
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PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	None required.

Architectural Requirements

WINDOWS:

Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-Desks and chairs.

EQUIPMENT:

-Computers; clock.

Technical Requirements

MECHANICAL:

Ventilation:	10 CFM/person + 0.12 CFM/sq. ft.
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Summer Design Temp:	72 F
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Winter Design Temp:	72 F
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Controls:	Individual direct digital controls.
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Sound Criteria:	30 (NC/RC)
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Special Systems:	Dedicated computer A/C units.
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Plumbing:	None required.
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ELECTRICAL:

Power:	2 duplex receptacle per wall. 1 duplex receptacle per computer station. Additional capacity for equipment listed.
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Data:	2 devices per wall, 1 per computer station.
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Phone:	2 devices per wall.
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Video:	None required.
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Audio:	None required.
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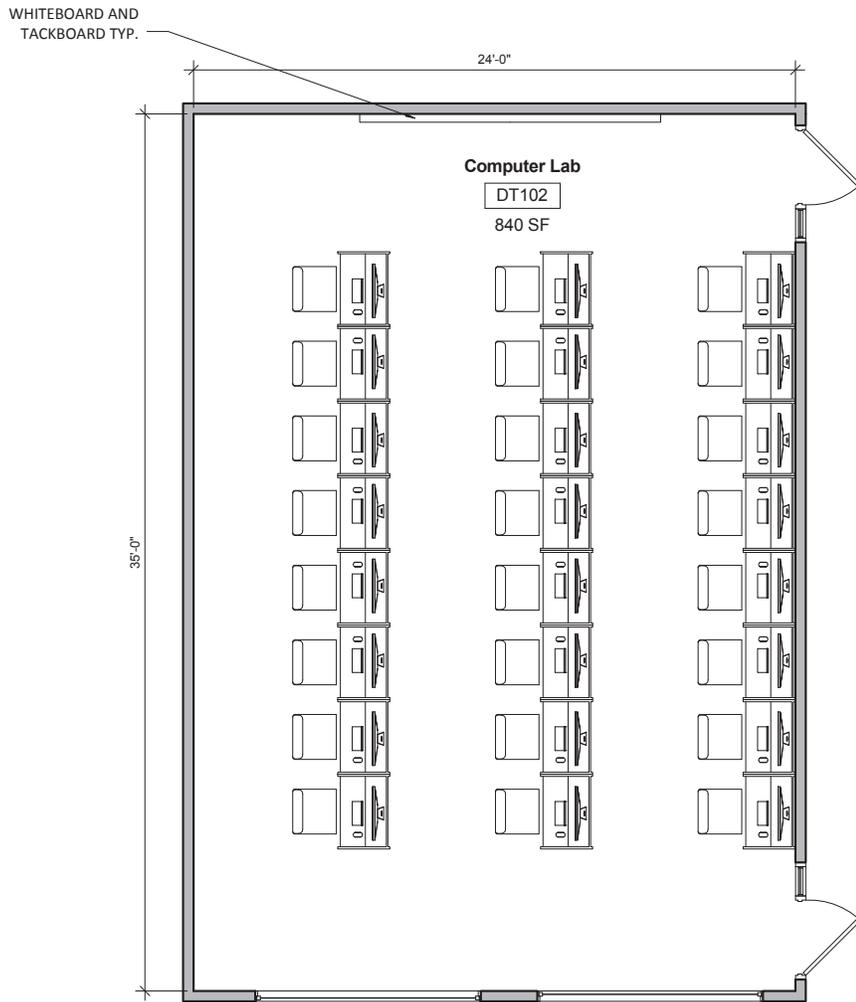
LIGHTING:

Fixture Type:	T-8 or LED Volumetric Lay-in.
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Accent Lighting:	Task lighting at work surface.
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Foot Candles:	40
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Controls:	Vacancy Sensor, zoned, dimmable w/ preset scenes, daylighting.
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Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	838 SF
Primary Function:	To provide storage for tools, equipment, and supplies.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Warm; clean lines; organized.

FINISHES:

Floor:	Sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Open.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:
-Open shelves, cabinets, countertops.

MOVEABLE FURNISHINGS:
-None required.

EQUIPMENT:
-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

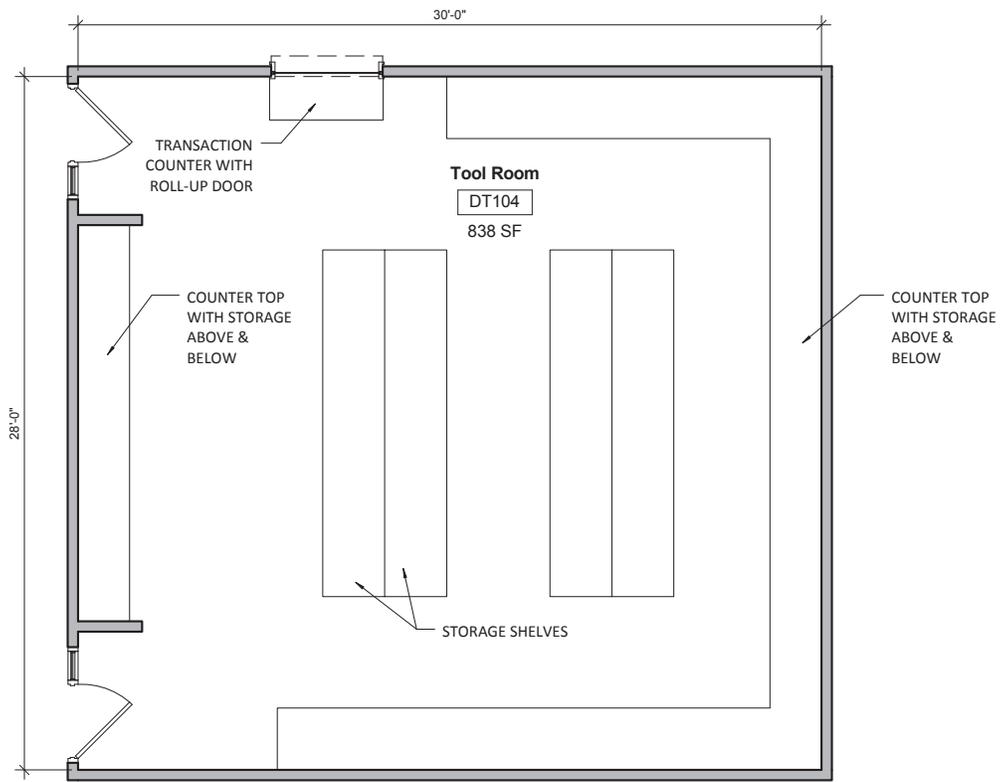
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: LED under upper cabinet.

Foot Candles: 20-30 Ambient / 40-50 Task.

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	High Bay.
Number Required:	4
Total Number:	4
Occupants:	2
Area:	1400 SF
Primary Function:	To provide work area for 2 vehicles.

RELATIONSHIPS:

Location:	Level 1
Adjacencies:	Tool room, storage.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Functional; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Open.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 18'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-Rolling tool cabinets, metal shop tables, etc.

EQUIPMENT:
-5 ton crane, chassis, eng., trans, reef.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
2 devices on opposing walls.

Phone/Data:

Video: None required.

Audio: None required.

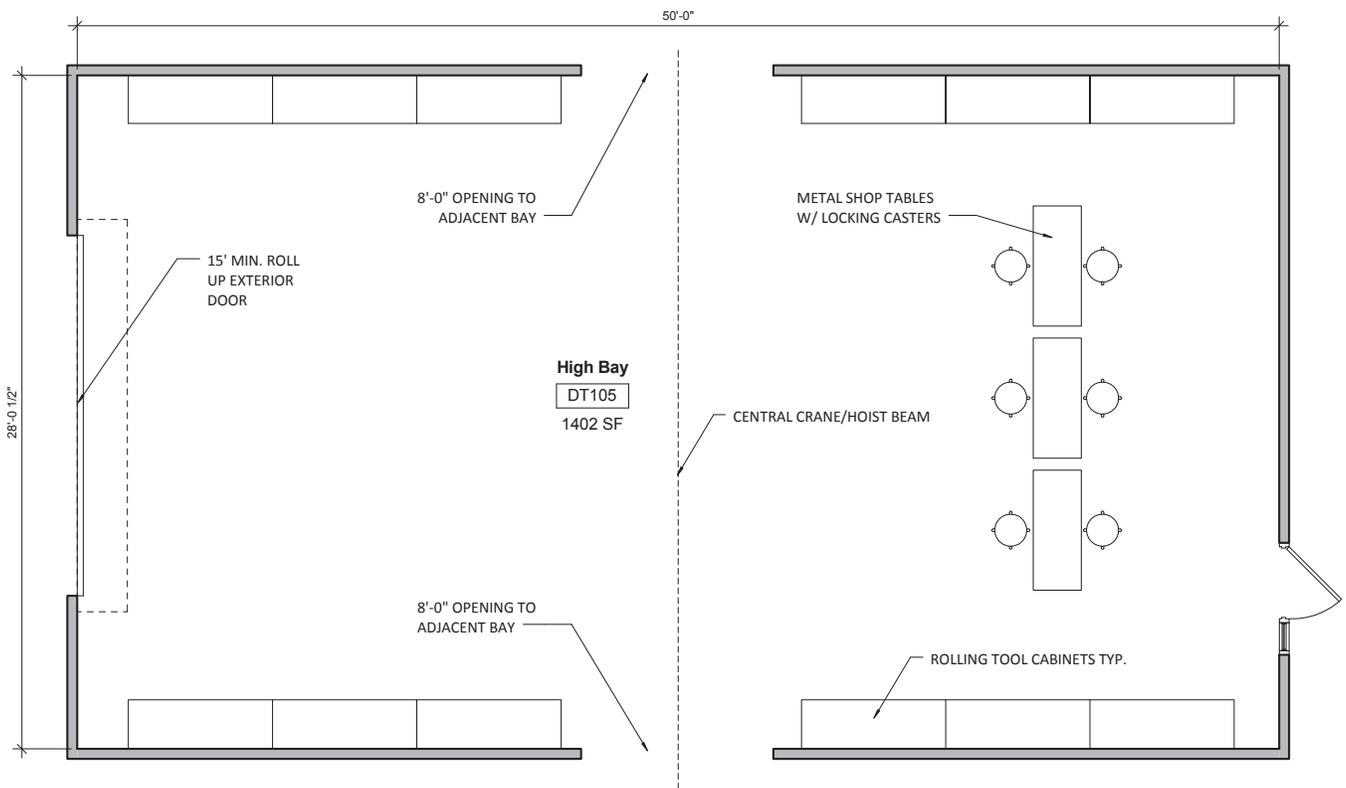
LIGHTING:

Fixture Type: T-8 or T5HO or LED High Bay

Accent Lighting: None required.

Foot Candles: 50

Controls: Occupancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-4
Area:	160 SF
Primary Function:	Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
 Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:
 None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

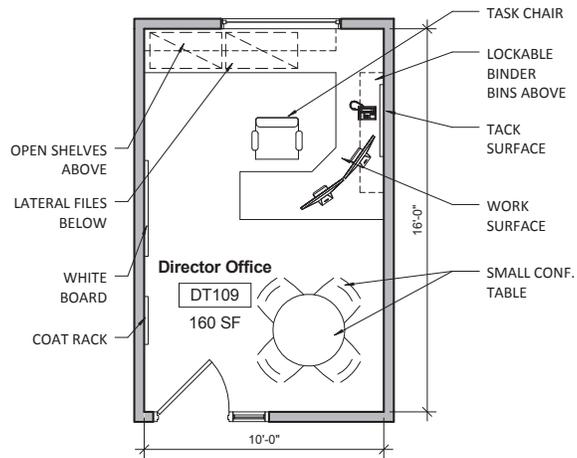
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-3
Area:	120 SF
Primary Function:	Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

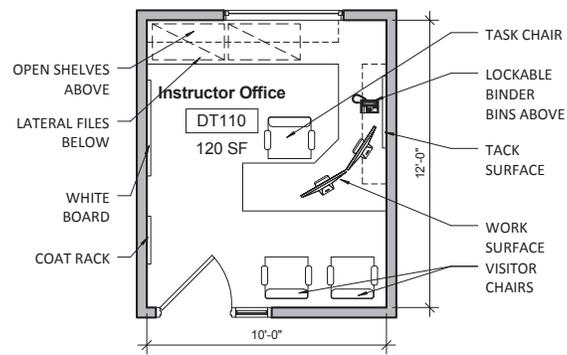
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space: Open workstation**Number Required:** 4**Total Number:** 4**Occupants:** 1**Area:** 68 SF ea.**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** None required.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Clean, organized, welcoming, and comfortable.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustic ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: None required.**Frame:** None required.**Special:** None required.**Architectural Requirements**

WINDOWS:

Type: None required.**Glazing:** None required.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Desk; Shelves and locking storage; Tackboard.

MOVEABLE FURNISHINGS:

-Staff rolling chair.

EQUIPMENT:

-Computer; Monitor; Phone; Trash can.

Technical Requirements

MECHANICAL:

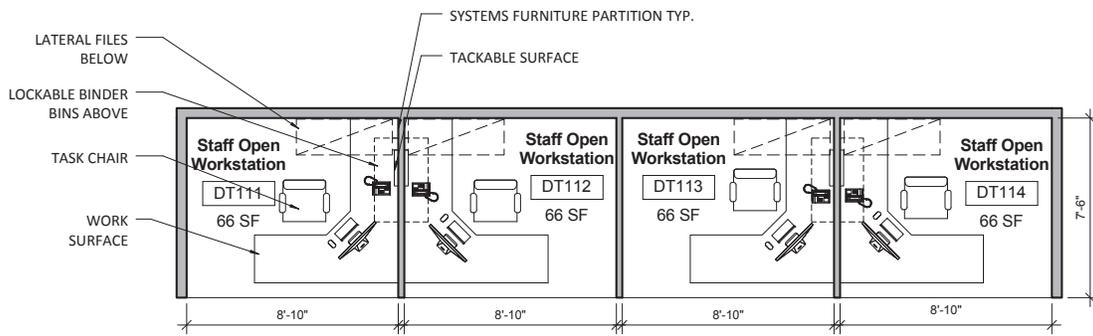
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.**Phone/Data:** 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40-50 Task**Controls:** Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Conference Room**Number Required:** 1**Total Number:** 1**Occupants:** 12**Area:** 503 SF**Primary Function:** Private and professional conference area, equipped to accommodate and display all current technology formats.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** None required.**Separation:** None required.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: Exterior.**Glazing:** Low-E.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable lower and upper cabinets; counter top; whiteboard.

MOVEABLE FURNISHINGS:

-Large table; 18 chairs; whiteboard; media chart.

EQUIPMENT:

-60" LCD, conference telephone.

Technical Requirements

MECHANICAL:

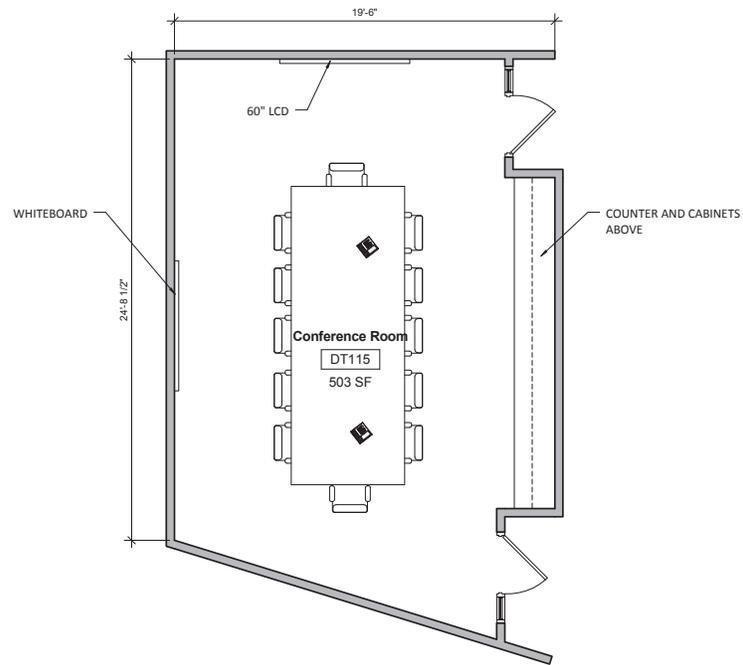
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** Sink, water, waste, and vent.

ELECTRICAL:

Power: 1 duplex receptacle per wall. 2 floor-plex floor box under table. Additional capacity for equipment listed.**Phone/Data:** 1 devices on opposing walls. 1 floor box under table.**Video:** A/V system with internet connection.**Audio:** Speaker with volume control.

LIGHTING:

Fixture Type: LED directional video conference Lay-in & decorative.**Accent Lighting:** LED**Foot Candles:** 50**Controls:** Vacancy Sensor, Daylighting w/ continuous dimming, preset scene dimming controller.



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	552 SF
Primary Function:	To provide storage for equipment, tools, supplies.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Open.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:
-Lateral filing cabinets, open shelves.

MOVEABLE FURNISHINGS:
-None required.

EQUIPMENT:
-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

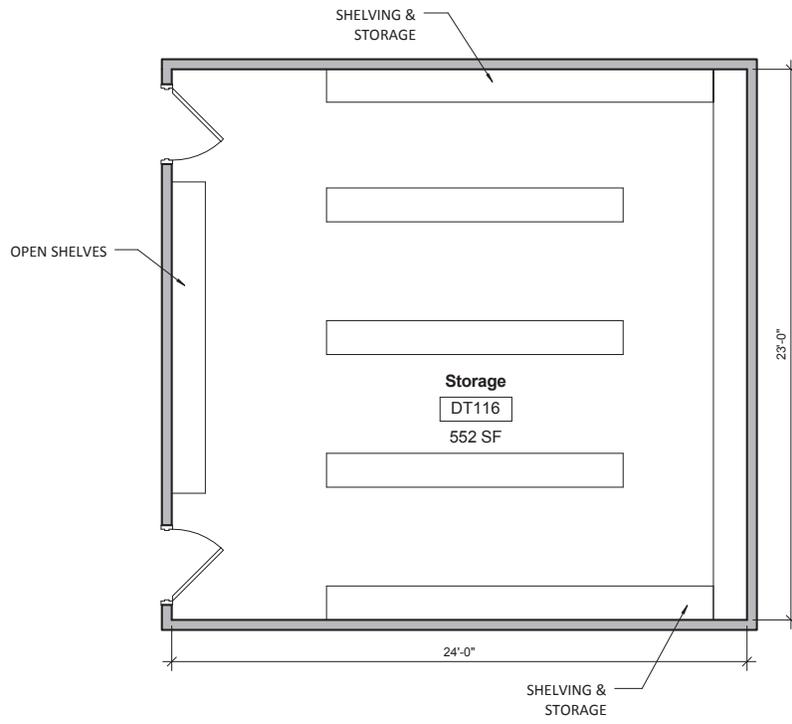
LIGHTING:

Fixture Type: T-8 or LED Lay-in.

Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Storage**Number Required:** 1**Total Number:** 1**Occupants:** 1**Area:** 120 SF**Primary Function:** To provide storage for records, documents, and supplies.

RELATIONSHIPS:

Location: Level 1**Adjacencies:** None Required.**Separation:** None Required.**Architectural Requirements****DESIGN/AESTHETIC:**
Warm; clean lines; organized.

FINISHES:

Floor: VCT with 4" rubber base.**Walls:** Painted gypsum board.**Ceiling:** Open.**Specialty Finishes:** None required.**Sound:** None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.**PRIVACY/SECURITY:**
None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: None required.**Glazing:** None required.**Natural Light:** None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets, open shelves, 24"x24" safe.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

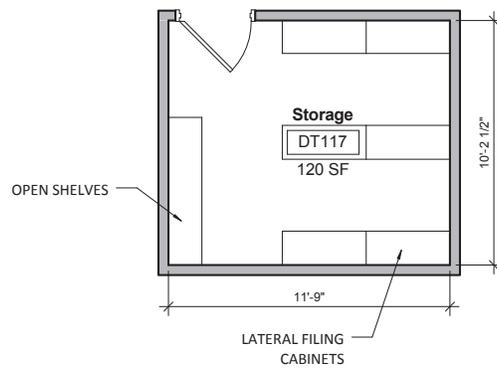
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

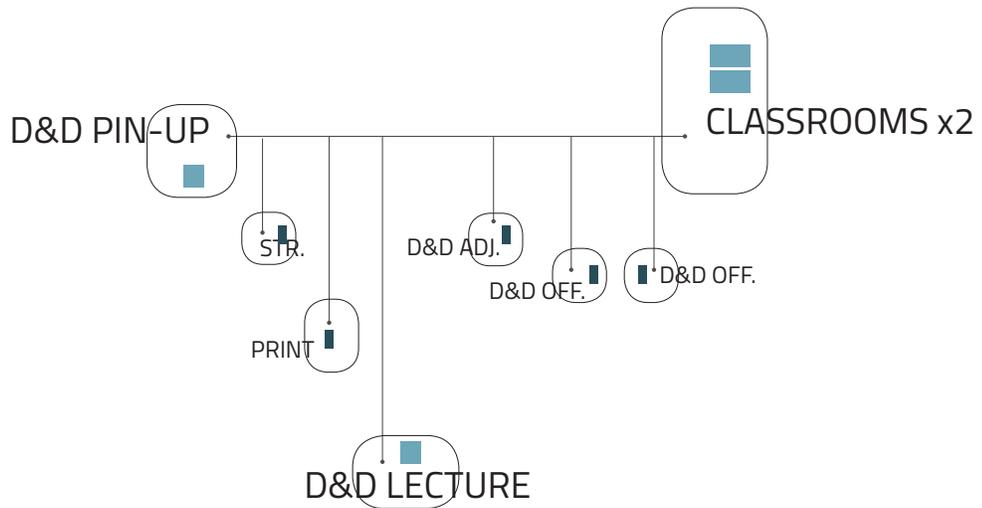
Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.**Phone/Data:** 2 devices on opposing walls.**Video:** None required.**Audio:** None required.

LIGHTING:

Fixture Type: T-8 or LED Lay-in.**Accent Lighting:** None required.**Foot Candles:** 20**Controls:** Vacancy sensor.



Adjacency Diagram >>
Drafting And Design



Space Requirements

SPACE SUMMARY:

Type of Space:	Classroom
Number Required:	1
Total Number:	1
Occupants:	24
Area:	1438 SF
Primary Function:	Teaching / learning wide range of Drafting and Design.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Pin up area, Work/Print room.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Inviting, invigorating, flexible.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter top; white board; tack board.

MOVEABLE FURNISHINGS:

-24 student drafting desks/chairs; instructor desk/chair.

EQUIPMENT:

-Computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. 1 duplex receptacle per computer. Additional capacity for equipment listed.

Data: 2 devices per wall, 1 per computer station.

Phone: 2 devices per wall.

Video: None required.

Audio: None required.

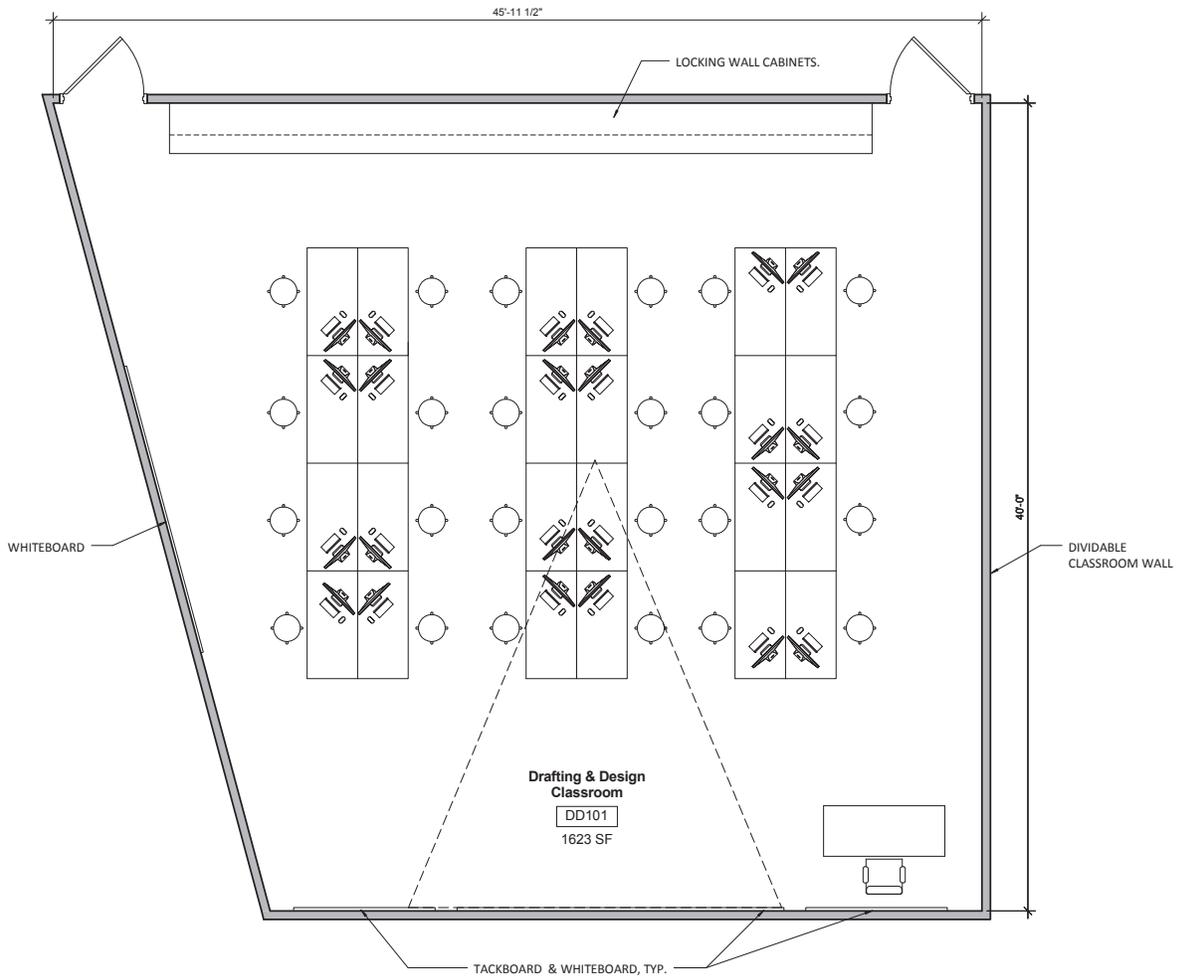
LIGHTING:

Fixture Type: T8 or LED Volumetric lay-in

Accent Lighting: Task lighting at work surface

Foot Candles: 40

Controls: Vacancy Sensor, zoned w/preset scenes, daylighting



Space Requirements

SPACE SUMMARY:

Type of Space:	Lecture Area
Number Required:	1
Total Number:	1
Occupants:	12
Area:	476 SF
Primary Function:	Private and professional lecture area, equipped to accommodate and display all current technology formats.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

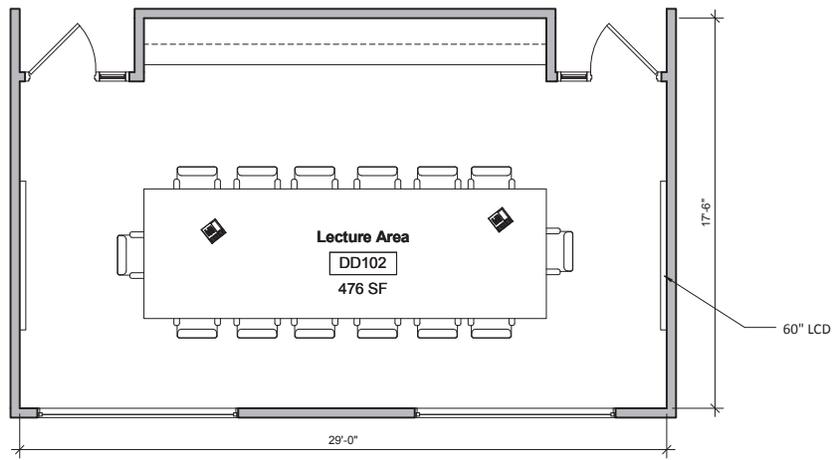
WINDOWS:	
Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.
CASEWORK/FIXED EQUIPMENT: -Wall cabinets, shelves, counter, bookcase.	

MOVEABLE FURNISHINGS:
-Large tables; 12 chairs; whiteboard; media chart.

EQUIPMENT:
-60" LCD, conference telephone.

Technical Requirements

MECHANICAL:	
Ventilation:	5 CFM/person + 0.06 CFM/sq. ft.
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	None required.
Plumbing:	None required.
ELECTRICAL:	
Power:	1 duplex receptacle per wall. 2 floor-plex floor box under table. Additional capacity for equipment listed.
Phone/Data:	1 devices on opposing walls. 1 floor box under table.
Video:	A/V system with internet connection.
Audio:	None required.
LIGHTING:	
Fixture Type:	LED lay-in & decorative
	LED
Accent Lighting:	50
Foot Candles:	
Controls:	Vacancy Sensor, Daylighting w/continuous dimming, preset scene dimming controller



Space Requirements

SPACE SUMMARY:

Type of Space:	Pin-Up area
Number Required:	1
Total Number:	1
Occupants:	12
Area:	280 SF
Primary Function:	Reception work area / waiting area.

RELATIONSHIPS:

Location:	Level 2
Adjacencies:	Catapult offices and classroom.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, welcoming, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	Maximum tackable surfaces.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF):	10'-0" Min.
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PRIVACY/SECURITY:
None required.

DOORS:

Type:	None required.
Frame:	None required.
Special:	None required.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-Tackable pin-up boards.

EQUIPMENT:
-None required.

Technical Requirements

MECHANICAL:
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: Ceiling speaker with volume control.

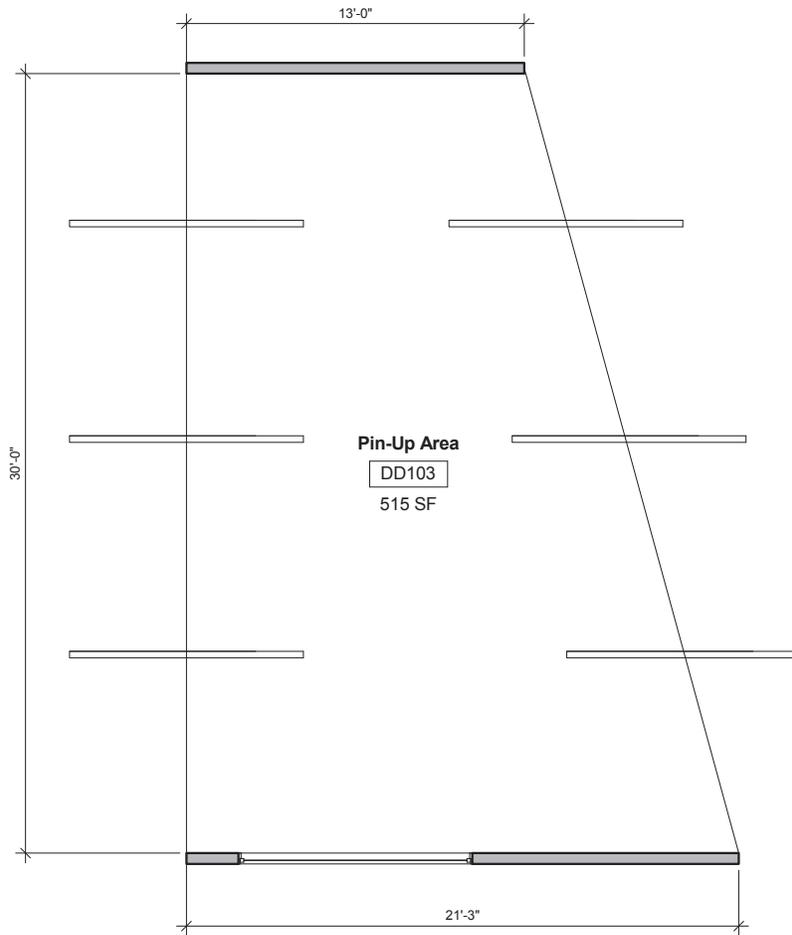
LIGHTING:

Fixture Type: T8 or LED Volumetric lay-in or suspended linear

Accent Lighting: Additional light over pin up walls.

Foot Candles: 40

Controls: Vacancy sensor.



Programming Requirements >> CLASSROOM

Drafting and Design

Space Requirements

SPACE SUMMARY:

Type of Space:	Classroom
Number Required:	1
Total Number:	1
Occupants:	24
Area:	1438 SF
Primary Function:	Teaching / learning wide range of Drafting and Design.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Pin up area, Work/Print room.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Inviting, invigorating, flexible.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation..

Architectural Requirements

WINDOWS:

Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter top; white board; tack board.

MOVEABLE FURNISHINGS:

-24 student drafting desks/chairs; instructor desk/chair.

EQUIPMENT:

-Computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. 1 duplex receptacle per computer. Additional capacity for equipment listed.

Data: 2 devices per wall, 1 per computer station.

Phone: 2 devices per wall.

Video: None required.

Audio: Speaker with volume control.

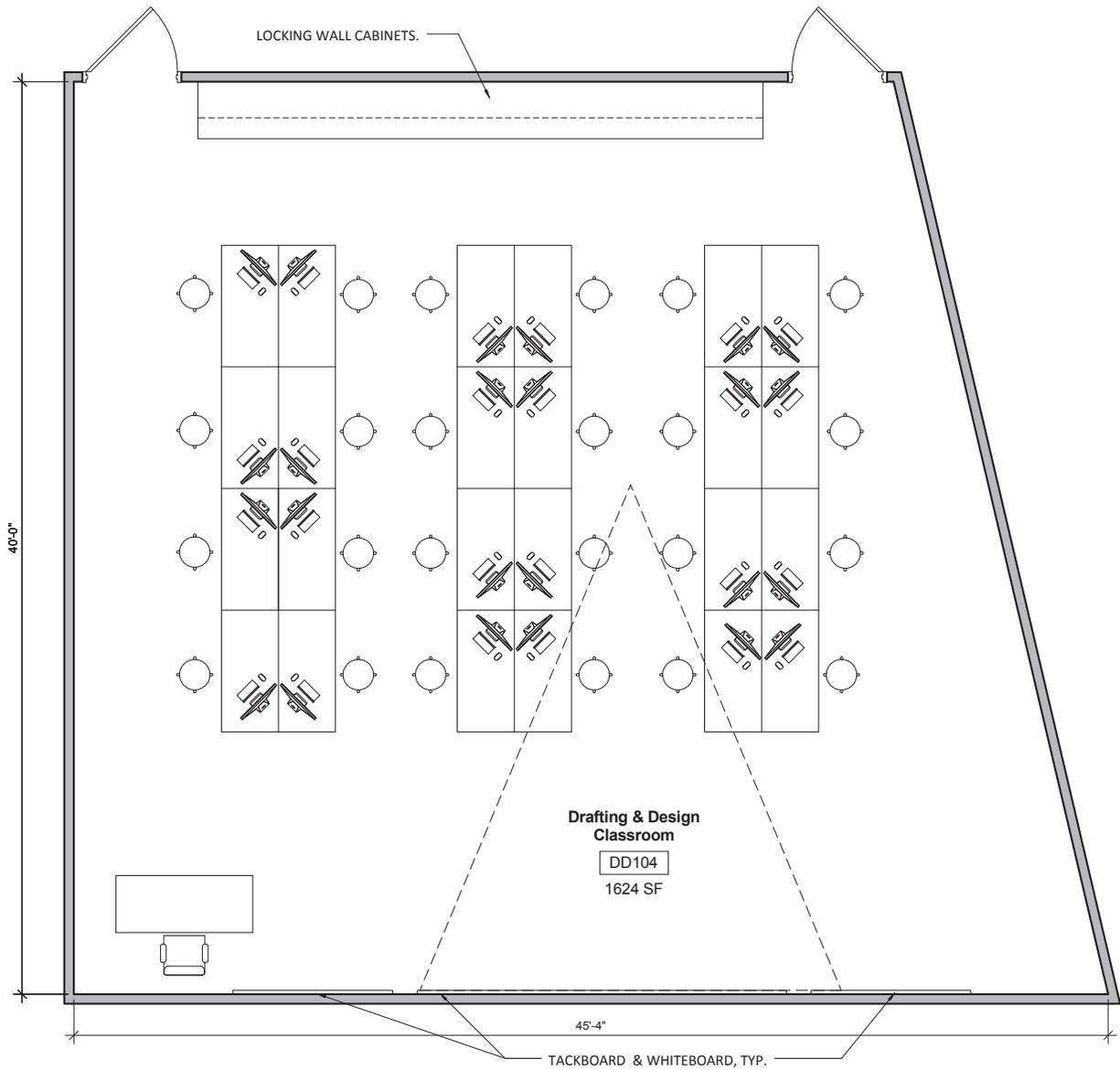
LIGHTING:

Fixture Type: T8 or LED Volumetric lay-in

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy Sensor, zoned, dimmable w/preset scenes, daylighting



Space Requirements

SPACE SUMMARY:

Type of Space: Print / Workroom**Number Required:** 1**Total Number:** 1**Occupants:** 1**Area:** 302 SF**Primary Function:** Adequate equipment and counter space for copying, printing, and document assembly.

RELATIONSHIPS:

Location: Level 1**Adjacencies:** None Required.**Separation:** None Required.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, and natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: None required.**Glazing:** None required.**Natural Light:** None required.

CASEWORK/FIXED EQUIPMENT:

-Upper and lower cabinets; counter top; whiteboard; tack board.

MOVEABLE FURNISHINGS:

-Work table, chair.

EQUIPMENT:

-Computer; 2 monitors; printers; label maker; copy machine; desktop speaker phone; paper shredder; fax machine.

Technical Requirements

MECHANICAL:

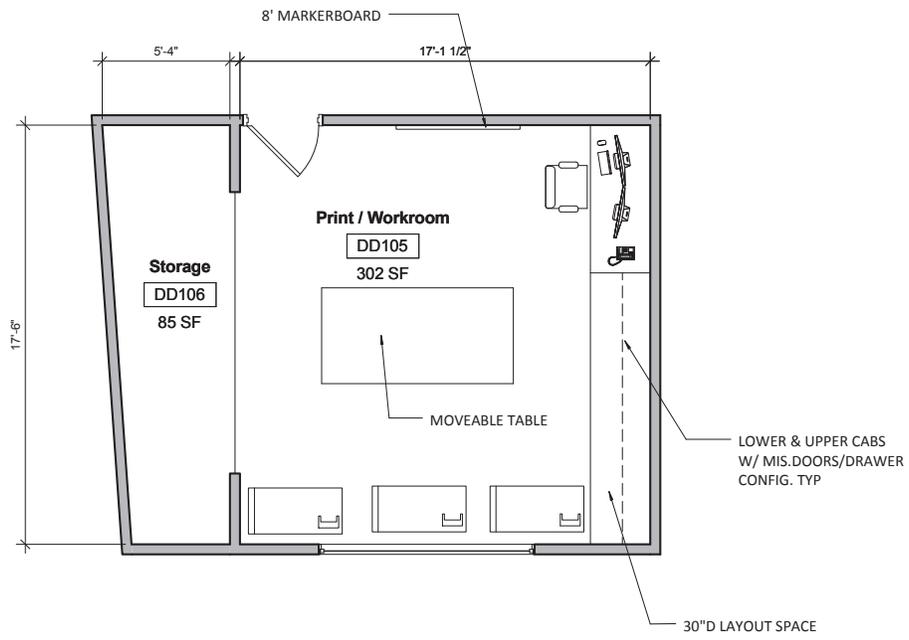
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.**Video:** None required.**Audio:** None required.

LIGHTING:

Fixture Type: T8 or LED lay-in volumetric**Accent Lighting:** LED under upper cabinets.**Foot Candles:** 40**Controls:** Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Office.**Number Required:** 1**Total Number:** 1**Occupants:** 1-4**Area:** 160 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** None Required.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustic ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: Exterior.**Glazing:** Low-E.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

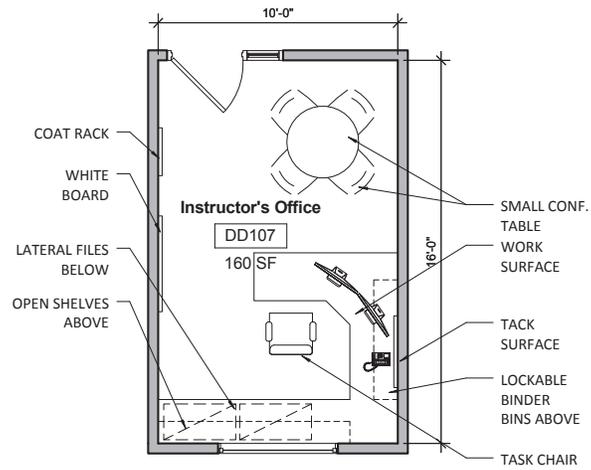
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.**Phone/Data:** 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40/50 Task**Controls:** Vacancy Sensor, Daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space: Open workstation**Number Required:** 2**Total Number:** 2**Occupants:** 1**Area:** 68 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** None required.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Clean, organized, welcoming, and comfortable.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: None required.**Frame:** None required.**Special:** None required.**Architectural Requirements**

WINDOWS:

Type: None required.**Glazing:** None required.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Desk; Shelves and locking storage; Tackboard.

MOVEABLE FURNISHINGS:

-Staff rolling chair.

EQUIPMENT:

-Computer; Monitor; Phone; Trash can.

Technical Requirements

MECHANICAL:

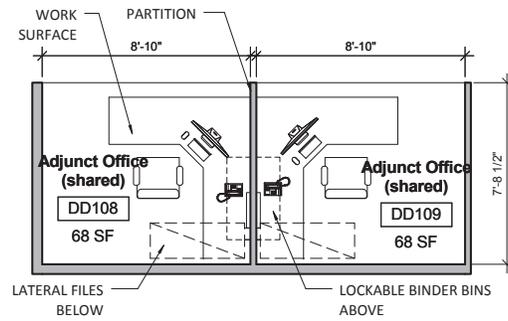
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.**Phone/Data:** 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40/50 Task**Controls:** Vacancy Sensor



Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-3
Area:	120 SF
Primary Function:	Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

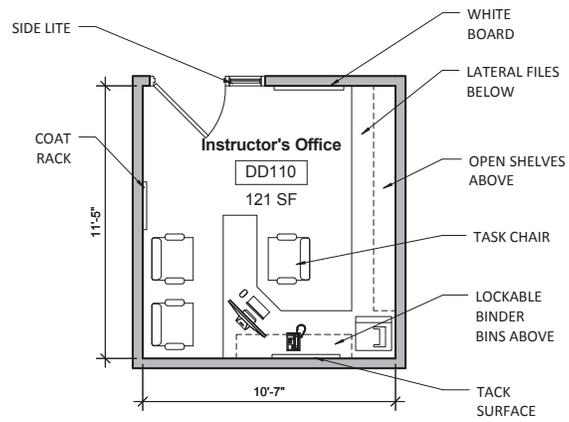
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear

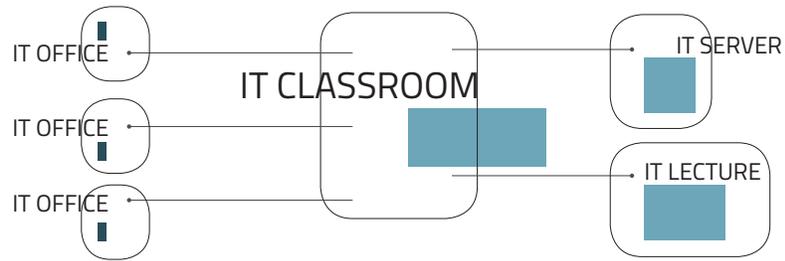
Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40/50 Task

Controls: Vacancy Sensor, Daylighting w/continuous dimming



Adjacency Diagram >>
Information Technology



Space Requirements

SPACE SUMMARY:

Type of Space:	Lecture Area
Number Required:	1
Total Number:	1
Occupants:	12
Area:	479 SF
Primary Function:	Private and professional lecture area, equipped to accommodate and display all current technology formats.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

**CEILING HEIGHT:
Above Finish Floor
(AFF):** 9'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:	
Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

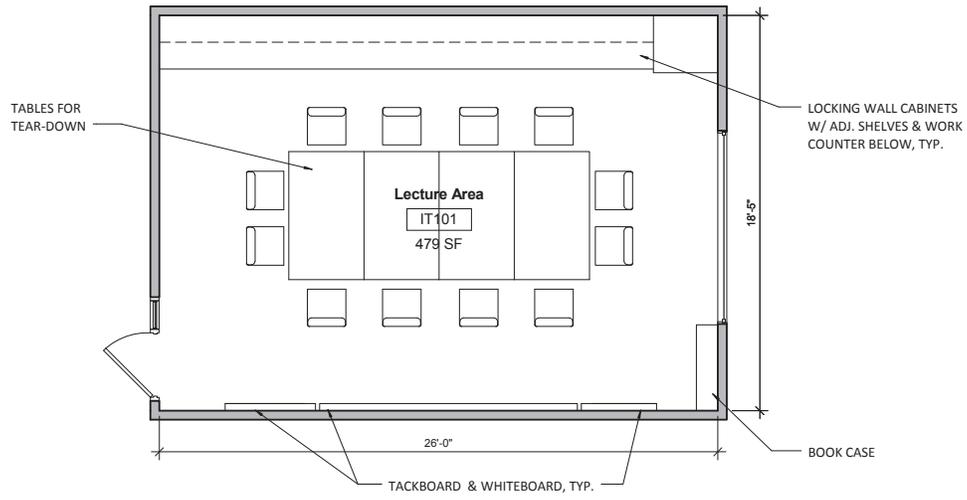
WINDOWS:	
Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.
CASEWORK/FIXED EQUIPMENT:	
-Wall cabinets, shelves, counter, bookcase.	

MOVEABLE FURNISHINGS:
-Large tables; 12 chairs; whiteboard; media chart.

EQUIPMENT:
-60" LCD, conference telephone.

Technical Requirements

MECHANICAL:	
Ventilation:	5 CFM/person + 0.06 CFM/sq. ft.
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	None required.
Plumbing:	None required.
ELECTRICAL:	
Power:	1 duplex receptacle per wall. 2 floor-plex floor box under table. Additional capacity for equipment listed.
Phone/Data:	1 devices on opposing walls. 1 floor box under table.
Video:	A/V system with internet connection.
Audio:	Speaker with volume control.
LIGHTING:	
Fixture Type:	LED lay-in & decorative
Accent Lighting:	LED
Foot Candles:	50
Controls:	Vacancy Sensor, Daylighting w/continuous dimming, preset scene dimming controller



Space Requirements

SPACE SUMMARY:

Type of Space:	Computer lab
Number Required:	1
Total Number:	1
Occupants:	24
Area:	982 SF
Primary Function:	Individual computer work stations.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-Desks and chairs.

EQUIPMENT:
-Computers; clock.

Technical Requirements

MECHANICAL:
Ventilation: 10 CFM/person + 0.12 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: Dedicated computer A/C units.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. 1 duplex receptacle per computer station. Additional capacity for equipment listed.

Data: 2 devices per wall, 1 per computer station.

Phone: 2 devices per wall.

Video: None required.

Audio: Speaker with volume control.

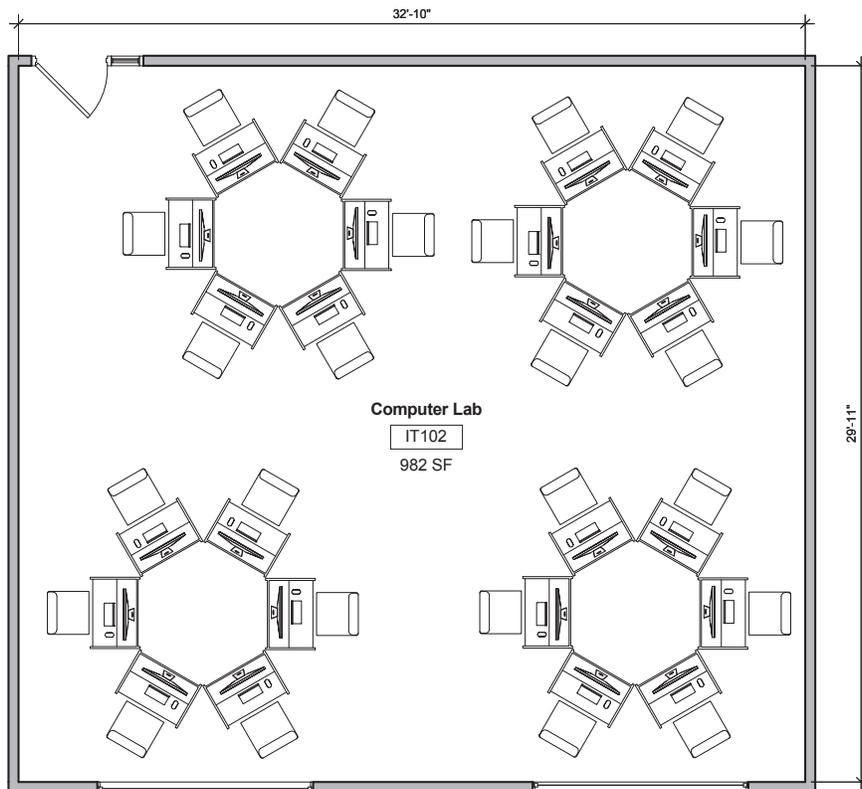
LIGHTING:

Fixture Type: T8 or LED Volumetric Lay-in

Accent Lighting: None required

Foot Candles: 40

Controls: Vacancy sensor, daylighting



Space Requirements

SPACE SUMMARY:

Type of Space:	Server Room.
Number Required:	1
Total Number:	1
Occupants:	0
Area:	241 SF
Primary Function:	End point for any and all data in the building; Home runs for data; Servers and switches MDF; D-Mark into building;
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Warm; clean lines; organized.

FINISHES:

Floor:	3" raised computer floor.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-6-8 server switch racks; rack-mounted server blades and switches; whiteboard.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

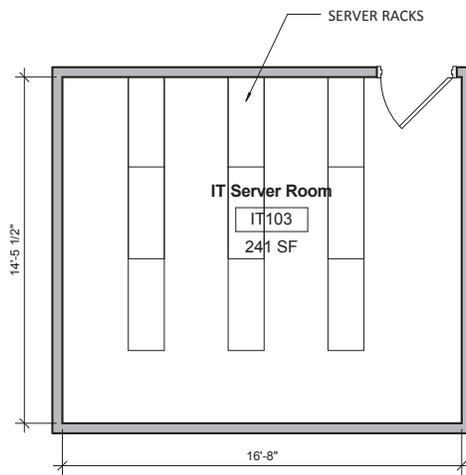
Ventilation:	None.
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	Electric Humidifier.
Plumbing:	None required.

ELECTRICAL:

Power:	4 duplex receptacles per wall. Floor outlets evenly spaced under switch racks. (1) 208VAC phase 3 per rack. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.

LIGHTING:

Fixture Type:	T8 or LED lay-in or strip light
Accent Lighting:	None required.
Foot Candles:	30
Controls:	Manual Switch



Space Requirements

SPACE SUMMARY:

Type of Space: Office.**Number Required:** 1**Total Number:** 1**Occupants:** 1-4**Area:** 160 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 3**Adjacencies:** None Required.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustic ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: Exterior.**Glazing:** Low-E.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

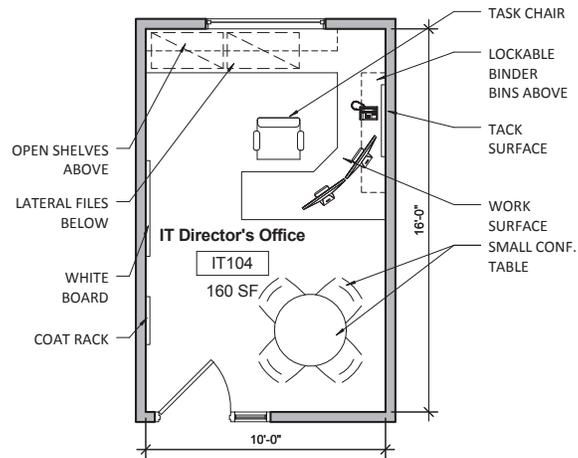
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: LED Volumetric lay-in or Suspended Linear**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40-50 Task**Controls:** Vacancy Sensor, Daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space: Office.

Number Required: 1

Total Number: 1

Occupants: 1-4

Area: 120 SF

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 3

Adjacencies: Visual connection to lab.

Separation: Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Painted gypsum board.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

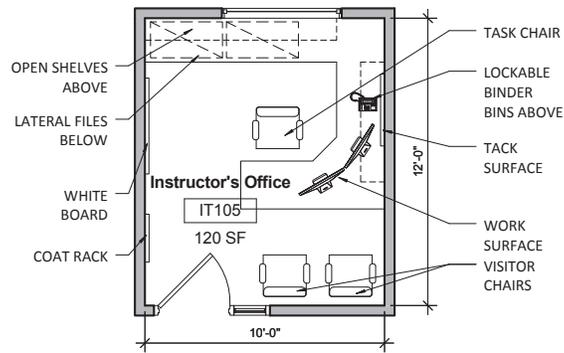
LIGHTING:

Fixture Type: LED Volumetric lay-in or Suspended Linear

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space: Open workstation

Number Required: 2

Total Number: 2

Occupants: 1

Area: 68 SF

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 3

Adjacencies: None required.

Separation: Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:

Clean, organized, welcoming, and comfortable.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0"

PRIVACY/SECURITY:

None required.

DOORS:

Type: None required.

Frame: None required.

Special: None required.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Desk; Shelves and locking storage; Tackboard.

MOVEABLE FURNISHINGS:

-Staff rolling chair.

EQUIPMENT:

-Computer; Monitor; Phone; Trash can.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

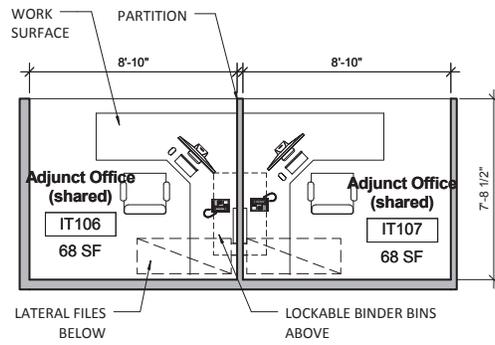
LIGHTING:

Fixture Type: LED Volumetric lay-in or Suspended Linear

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	0
Area:	83 SF
Primary Function:	Storage of hardware and software for IT department.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Server room.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Warm; clean lines; organized.

FINISHES:

Floor:	Sealed concrete
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0"

PRIVACY/SECURITY:
Security code access.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Electronic lock.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:
-Fixed and adjustable shelving.

MOVEABLE FURNISHINGS:
-Work Bench.

EQUIPMENT:
-None required.

Technical Requirements

MECHANICAL:
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. 2 quad receptacles at work bench. Additional capacity for equipment listed.

Data: 1 device on each wall. 4 devices at work bench.

Phone: 1 device at workbench.

Video: None required.

Audio: None required.

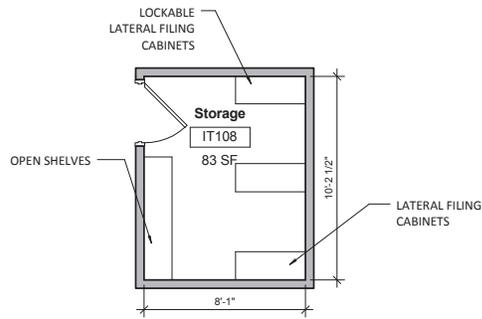
LIGHTING:

Fixture Type: T-8 or LED lay-in.

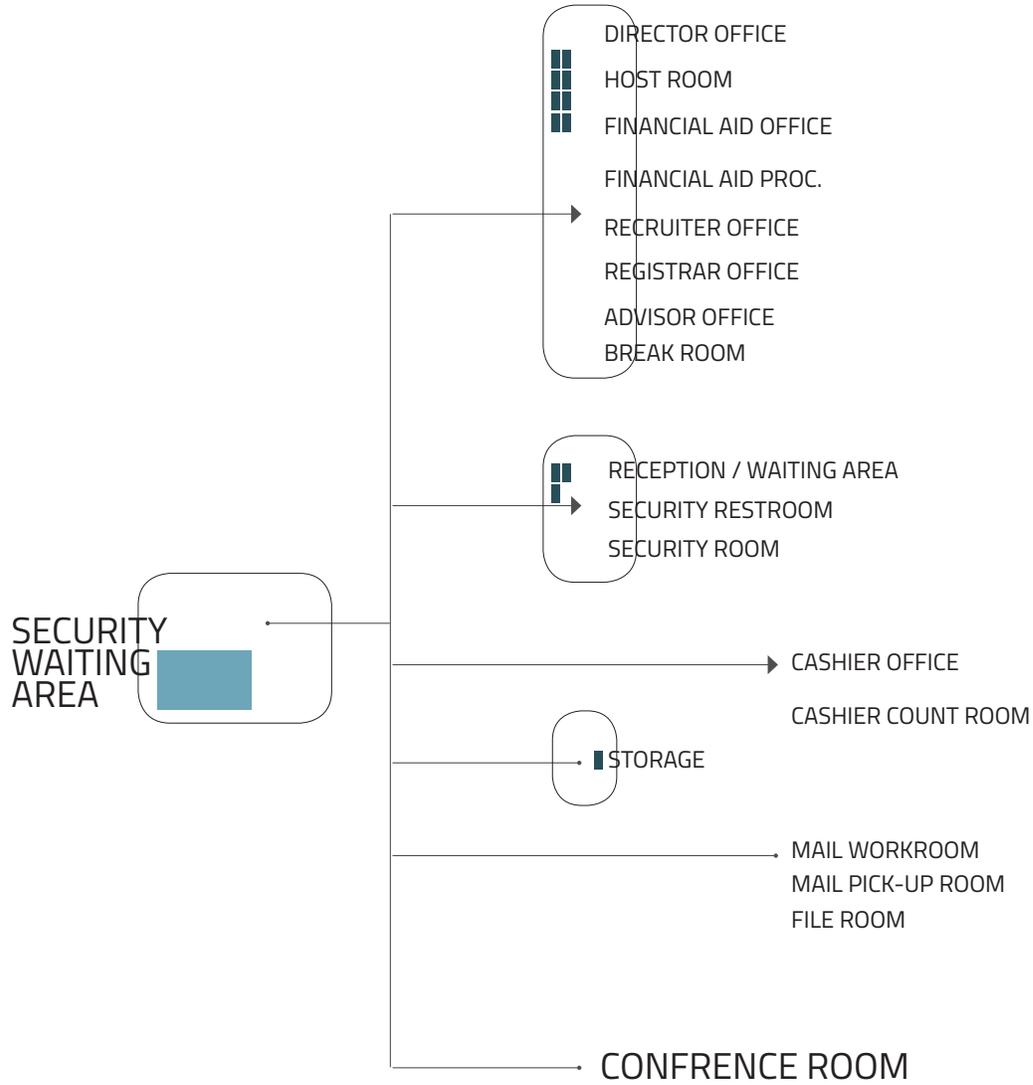
Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy sensor.



Office Management



Space Requirements

SPACE SUMMARY:

Type of Space:	Classroom
Number Required:	1
Total Number:	1
Occupants:	24
Area:	728 SF
Primary Function:	Teaching / learning wide range of Office Management classes.

RELATIONSHIPS:

Location:	Level 2
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Inviting, invigorating, flexible.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0"

PRIVACY/SECURITY:
Interior windows with blinds.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter top; white board; tack board.

MOVEABLE FURNISHINGS:

-24 student desks/chairs; 1 instructor desk/chair

EQUIPMENT:

- Computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall and at instructor station. Floor outlets at student desks. Additional capacity for equipment listed.

Data: 2 devices on opposing walls and at instructor station. 1 wireless airport. Additional capacity for equipment listed.

Phone: 2 devices on opposing walls and at instructor station.

Video: A/V system with internet connection.

Audio: Speakers with volume control.

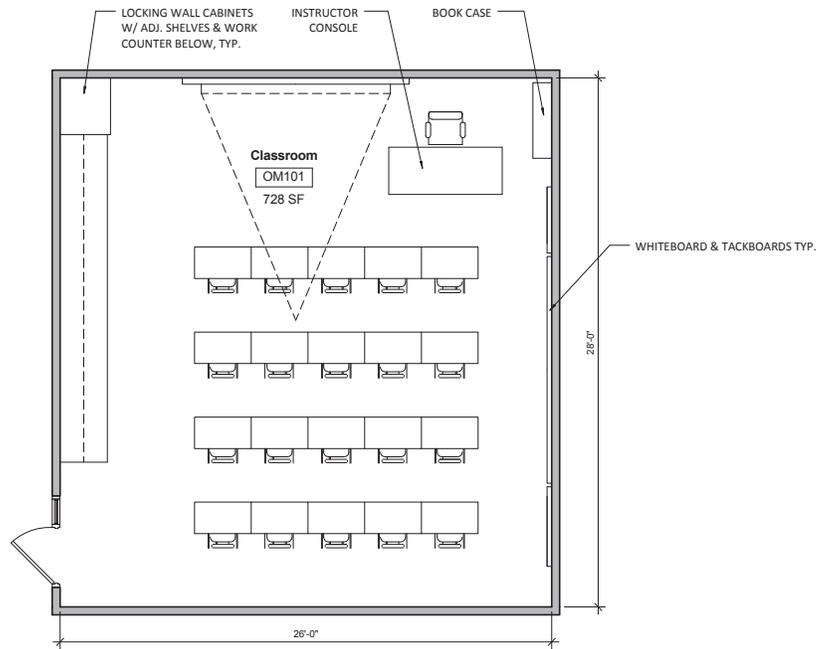
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy Sensor, zoned, dimmable w/ preset scenes, daylighting.



Space Requirements

SPACE SUMMARY:

Type of Space:	Development center.
Number Required:	1
Total Number:	1
Occupants:	8
Area:	426 SF
Primary Function:	Accommodate Employee Development program .
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	Office management classroom.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Upper and lower cabinets; counter top; whiteboard; tack board.

MOVEABLE FURNISHINGS:

-Work tables, chair.

EQUIPMENT:

-Computer; 2 monitors; printers; label maker; copy machine; desktop speaker phone; paper shredder; fax machine.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.

Video: None required.

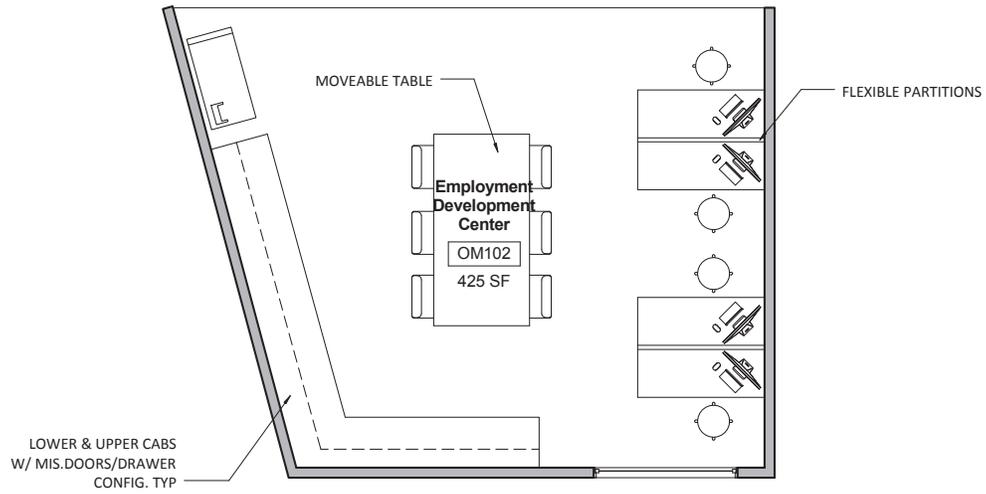
Audio: None required.

LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear
Accent Lighting: Under upper cabinets.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Computer lab
Number Required:	1
Total Number:	1
Occupants:	24
Area:	968 SF
Primary Function:	Individual computer work stations.

RELATIONSHIPS:

Location:	Level 2
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Painted gypsum board.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF):	10'-0" Min.
----------------------------------	-------------

PRIVACY/SECURITY:

None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-Desks and chairs.

EQUIPMENT:

-Computers; clock.

Technical Requirements

MECHANICAL:

Ventilation: 10 CFM/person + 0.12 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: Dedicated computer A/C units.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. 1 duplex receptacle per computer station. Additional capacity for equipment listed.

Data: 2 devices per wall, 1 per computer station.

Phone: 2 devices per wall.

Video: None required.

Audio: None required.

LIGHTING:

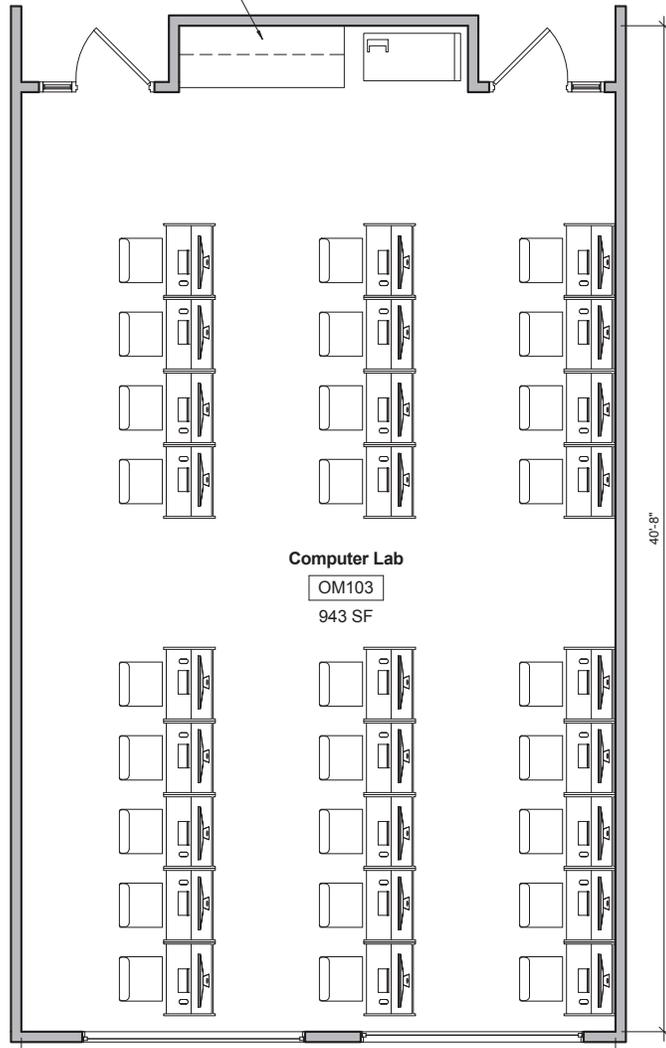
Fixture Type: T-8 or LED Volumetric Lay-in

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy Sensor, zoned, dimmable w/ preset scenes, daylighting.

LOWER & UPPER CABS
W/ MIS.DOORS/DRAWER
CONFIG. TYP



Space Requirements

SPACE SUMMARY:

Type of Space: Office.**Number Required:** 1**Total Number:** 1**Occupants:** 1-4**Area:** 160 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** None Required.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustic ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.**PRIVACY/SECURITY:**
None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: Exterior.**Glazing:** Low-E.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

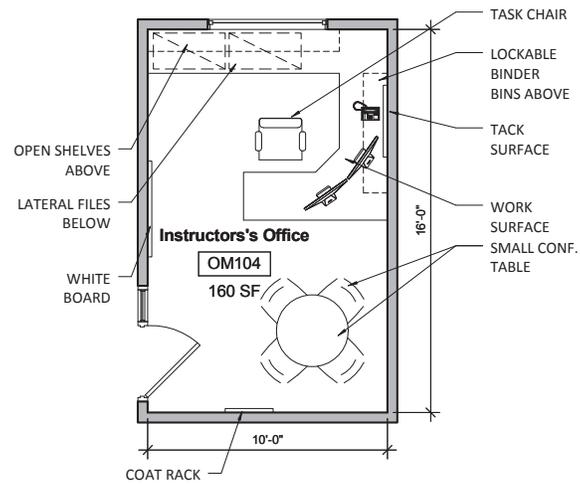
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 30-40 Ambient / 40-50 Task**Controls:** Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space:	Reception / Waiting
Number Required:	1
Total Number:	1
Occupants:	7-8
Area:	180 SF
Primary Function:	Reception work area / waiting area.

RELATIONSHIPS:

Location:	Level 2
Adjacencies:	Office management.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, welcoming, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF):	10'-0" Min.
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PRIVACY/SECURITY:
None required.

DOORS:

Type:	None required.
Frame:	None required.
Special:	None required.

Architectural Requirements

WINDOWS:

Type:	None required.
Glazing:	None required.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-Couch, comfortable chair, side table, coffee table.

EQUIPMENT:

-Computer;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

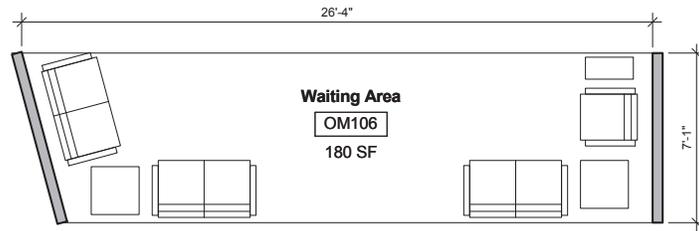
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: None required.

Foot Candles: 20 Ambient.

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	120 SF
Primary Function:	To provide storage for records, documents, and supplies.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
 Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:
 None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets, open shelves, 24"x24" safe.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
 2 devices on opposing walls.

Phone/Data:

Video: None required.

Audio: None required.

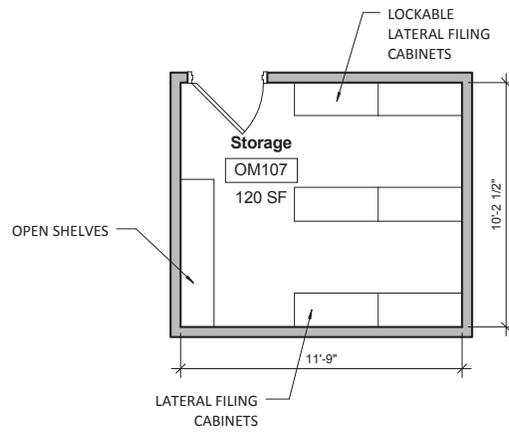
LIGHTING:

Fixture Type: T-8 or LED Lay-in.

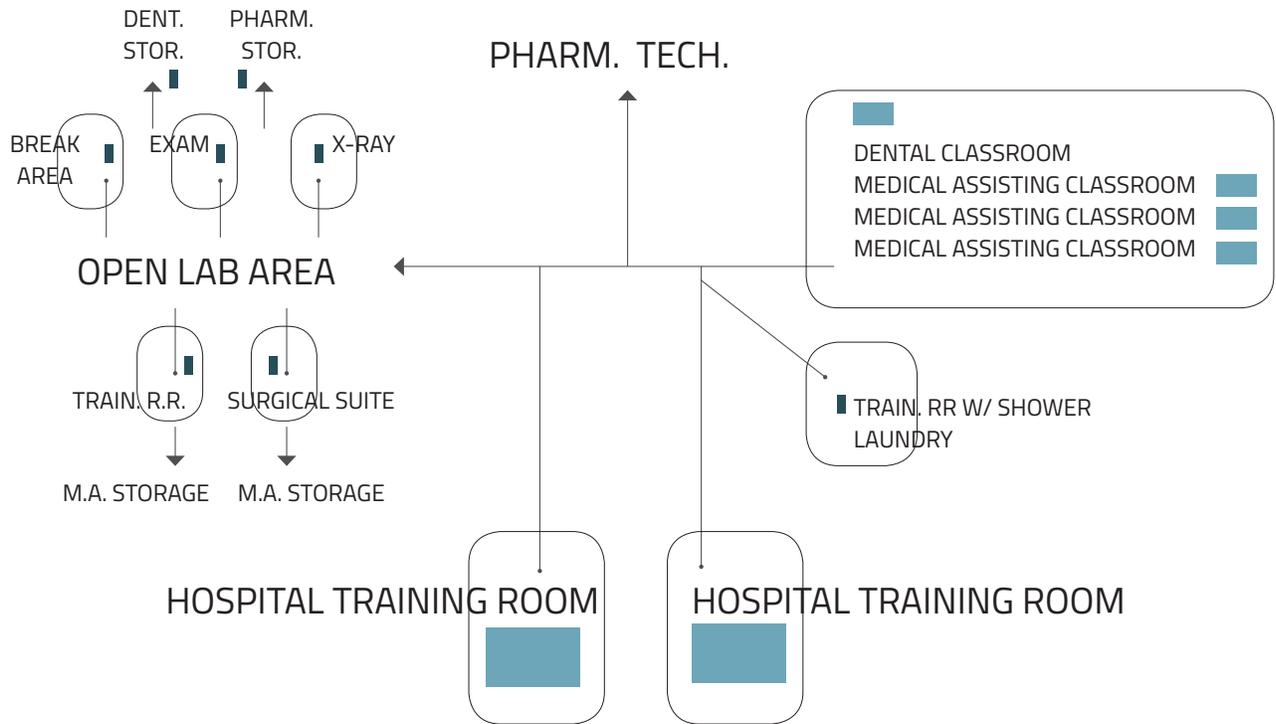
Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy Sensor.



Medical Assisting



Space Requirements

SPACE SUMMARY:

Type of Space:	Classroom
Number Required:	2
Total Number:	2
Occupants:	24
Area:	728 SF
Primary Function:	Teaching / learning wide range of Medical Assisting classes.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Inviting, invigorating, flexible.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

Interior windows with blinds.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation..

Architectural Requirements

WINDOWS:

Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter top; white board; tack board.

MOVEABLE FURNISHINGS:

-24 student desks/chairs; 1 instructor desk/chair

EQUIPMENT:

-2 computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall and at instructor station. Floor outlets at student desks. Additional capacity for equipment listed.

Data: 2 devices on opposing walls and at instructor station. 1 wireless airport. Additional capacity for equipment listed.

Phone: 2 devices on opposing walls and at instructor station.

Video: A/V system with internet connection.

Audio: Speakers with volume control.

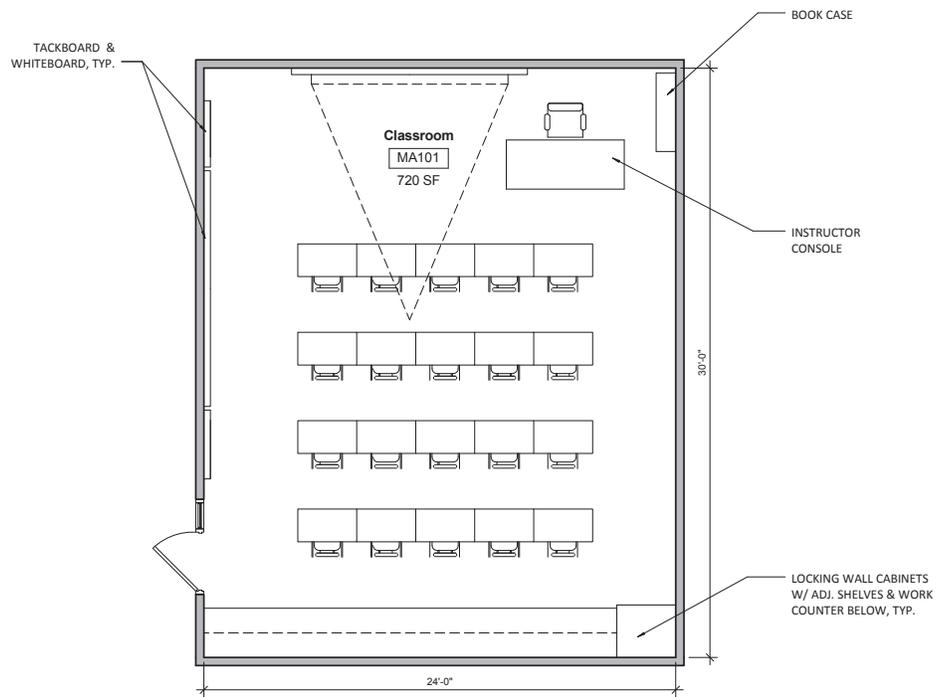
LIGHTING:

Fixture Type: T8 or LED Volumetric Lay-in

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy Sensor, zoned, dimmable w/preset scenes, daylighting



Space Requirements

SPACE SUMMARY:

Type of Space:	Reception / Waiting
Number Required:	1
Total Number:	1
Occupants:	6
Area:	240 SF
Primary Function:	Reception work area / waiting area.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	Medical offices.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, welcoming, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	None required.
Frame:	None required.
Special:	None required.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Cubbies/lockers for 48 students. Coat rack with shelf.

MOVEABLE FURNISHINGS:

-Couch, comfortable chair, side table, coffee table.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

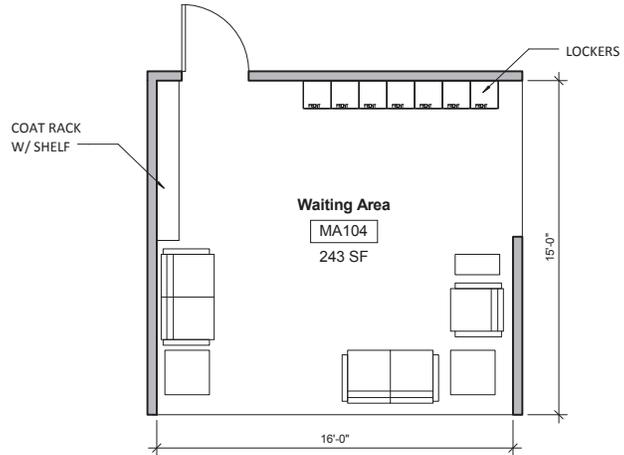
LIGHTING:

Fixture Type: T8 or LED Volumetric Lay-in

Accent Lighting: LED under upper cabinet

Foot Candles: 50

Controls: Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Clinical Lab
Number Required:	2
Total Number:	2
Occupants:	6
Area:	604 SF
Primary Function:	Teaching and practicing MA skills, CNA skills including Bariatric equipment.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Waiting area.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	Linoleum.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	All surfaces must be cleanable.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	None Required.
Frame:	None Required.
Special:	None Required.

Architectural Requirements

WINDOWS:

Type:	None required.
Glazing:	None required.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable upper and lower cabinets, counter top, whiteboard, tackboard.

MOVEABLE FURNISHINGS:

-Small desk, chairs.

EQUIPMENT:

-Scales, wheel chairs, walkers, crutches, blood pressure cuffs, EKG, eye charts, baby scale, trash cans, clock, pencil sharpener.

Technical Requirements

MECHANICAL:

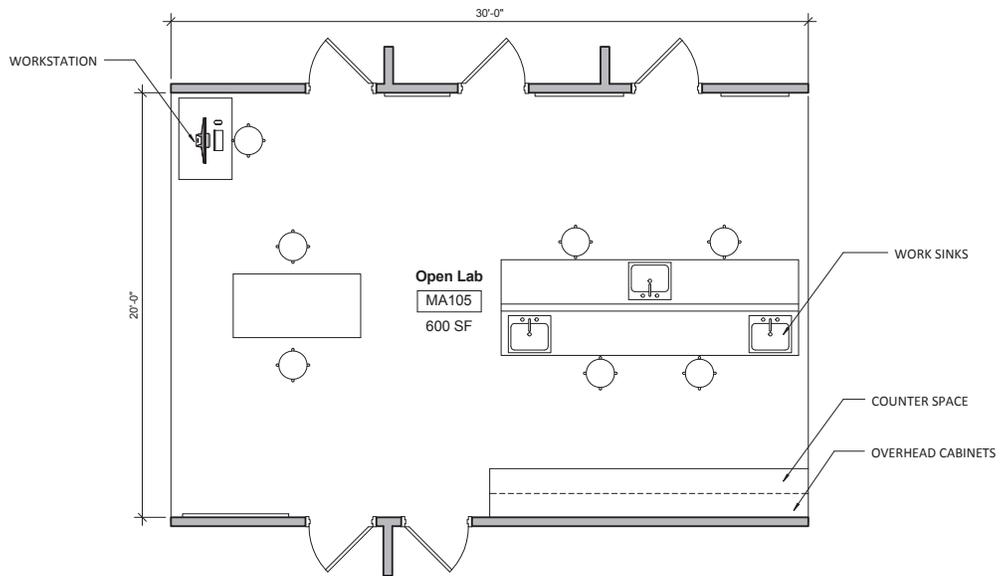
Ventilation:	6-10 AC/hr per ANSI Z9.5
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	None required.
Plumbing:	3 Hand wash sinks, water, waste and vent.

ELECTRICAL:

Power:	1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.

LIGHTING:

Fixture Type:	T8 or LED Volumetric Lay-in
Accent Lighting:	LED under upper cabinet
Foot Candles:	50
Controls:	Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Clinical Lab
Number Required:	2
Total Number:	2
Occupants:	6
Area:	604 SF
Primary Function:	Teaching and practicing MA skills, CNA skills including Bariatric equipment.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Waiting area.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	Linoleum.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	All surfaces must be cleanable.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	None Required.
Frame:	None Required.
Special:	None Required.

Architectural Requirements

WINDOWS:

Type:	None required.
Glazing:	None required.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable upper and lower cabinets, counter top, whiteboard, tackboard.

MOVEABLE FURNISHINGS:

-Small desk, chairs.

EQUIPMENT:

-Scales, wheel chairs, walkers, crutches, blood pressure cuffs, EKG, eye charts, baby scale, trash cans, clock, pencil sharpener.

Technical Requirements

MECHANICAL:

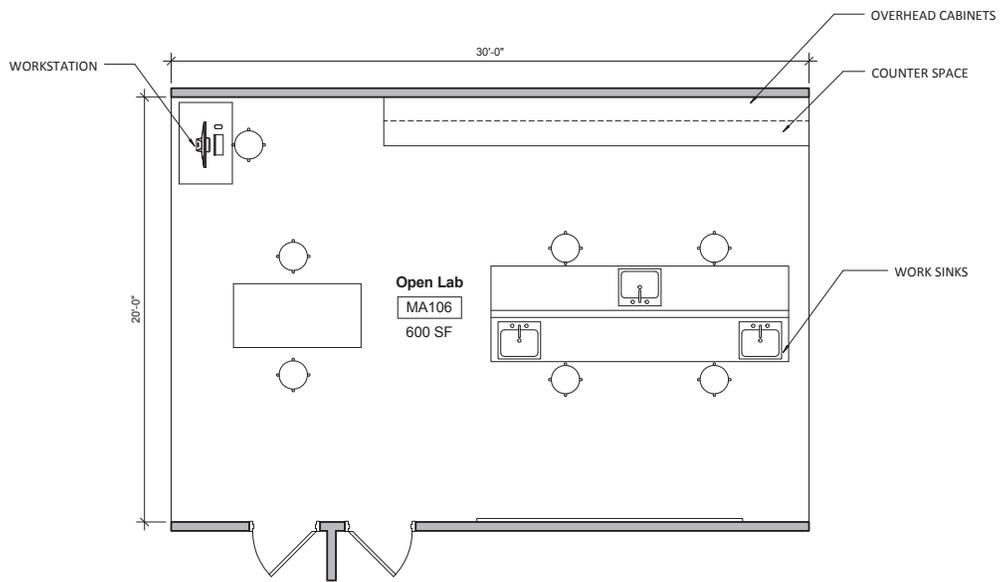
Ventilation:	6-10 AC/hr per ANSI Z9.5
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	None required.
Plumbing:	3 Hand wash sinks, water, waste and vent.

ELECTRICAL:

Power:	1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.

LIGHTING:

Fixture Type:	T8 or LED Volumetric Lay-in
Accent Lighting:	LED under upper cabinet
Foot Candles:	50
Controls:	Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Clinical Lab
Number Required:	1
Total Number:	1
Occupants:	1-2
Area:	100 SF
Primary Function:	Teaching and practicing phlebotomy skills.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Clean, professional, interesting.

FINISHES:

Floor:	Stain resistant, washable linoleum.
Walls:	Painted gypsum board with backsplash at sink.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	All surfaces must be easy to clean and disinfect.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	None required.
Glazing:	None required.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable upper and lower cabinets, counter top, whiteboard, tackboard, wall mount for computer.

MOVEABLE FURNISHINGS:

-Patient chair, 1 stool.

EQUIPMENT:

-Undercounter fridge, hand sink, brackets for gloves, sharps containers, bio-hazard trash cans, trash can, soap and paper towel dispenser.

Technical Requirements

MECHANICAL:

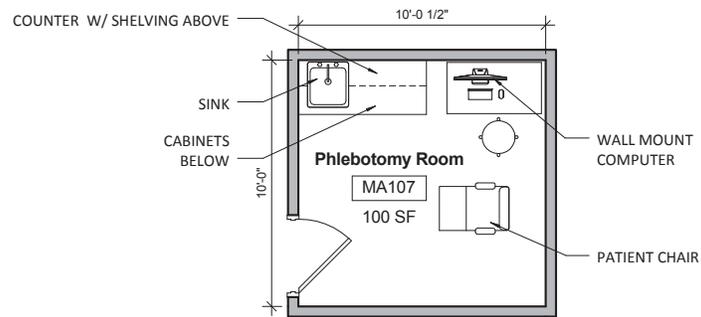
Ventilation:	6-10 AC/hr per ANSI Z9.5
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	30 (NC/RC)
Special Systems:	Good ventilation.
Plumbing:	1 hand wash sink; water, waste and vent.

ELECTRICAL:

Power:	1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.

LIGHTING:

Fixture Type:	T8 or LED Volumetric Lay-in
Accent Lighting:	LED under upper cabinet
Foot Candles:	50
Controls:	Vacancy sensor



Space Requirements

SPACE SUMMARY:

Type of Space:	Exam room.
Number Required:	1
Total Number:	1
Occupants:	1-2
Area:	100 SF
Primary Function:	Teaching, demonstrating, practicing, exams.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	Stain resistant, washable linoleum.
Walls:	Painted gypsum board with backsplash at sink.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	All surfaces must be easy to clean and disinfect.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable upper and lower cabinets, counter top, whiteboard, tackboard, wall mount for computer, 30"x72" exam table.

MOVEABLE FURNISHINGS:

-Table, 2 chairs, waste can, bio-hazard waste receptacle.

EQUIPMENT:

-Computer, exam equipment.

Technical Requirements

MECHANICAL:

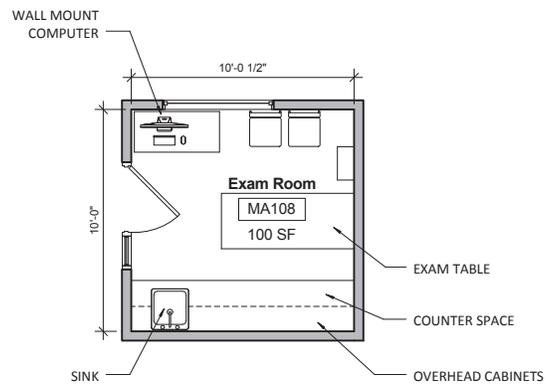
Ventilation:	5 CFM / person + 0.06 CFM / sq. ft.
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	None required.
Plumbing:	1 hand wash sink; water, waste and vent.

ELECTRICAL:

Power:	1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.

LIGHTING:

Fixture Type:	T8 or LED Volumetric Lay-in
Accent Lighting:	None required
Foot Candles:	50
Controls:	Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Surgical suite.
Number Required:	1
Total Number:	1
Occupants:	1-2
Area:	224 SF
Primary Function:	Teaching, demonstrating, practicing, exams.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	Stain resistant, washable linoleum.
Walls:	Painted gypsum board with backsplash at sink.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	All surfaces must be easy to clean and disinfect.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable upper and lower cabinets, counter top, whiteboard, tackboard, wall mount for computer, 30"x72" surgical table.

MOVEABLE FURNISHINGS:

-Desk, chairs, waste can, bio-hazard waste receptacle.

EQUIPMENT:

-Computer, surgical equipment.

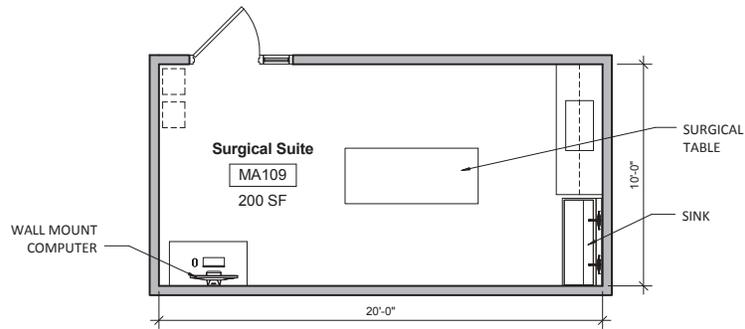
Technical Requirements

MECHANICAL:

Ventilation:	5 CFM / person + 0.06 CFM / sq. ft.
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	None required.
Plumbing:	2 hand wash sink; water, waste and vent.

ELECTRICAL:

Power:	1 duplex receptacle per wall. 1 GFCI duplex outlet above counter near sink. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls. 1 phone in hall.
Video:	None required.
Audio:	None required.
LIGHTING:	
Fixture Type:	T8 or LED Volumetric Lay-in
Accent Lighting:	Above surgical table
Foot Candles:	75
Controls:	Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	X-ray room.
Number Required:	1
Total Number:	1
Occupants:	1-2
Area:	100 SF
Primary Function:	Teaching, demonstrating, practicing, exams on x-ray procedures.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	Linoleum.
Walls:	Painted gypsum board with backsplash at sink.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	All surfaces must be easy to clean and disinfect.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lockable upper and lower cabinets, counter top, whiteboard, tackboard, wall mount for computer, 30"x72" exam table.

MOVEABLE FURNISHINGS:

-Desk, stool, waste can, bio-hazard waste receptacle.

EQUIPMENT:

-Computer, x-ray equipment.

Technical Requirements

MECHANICAL:

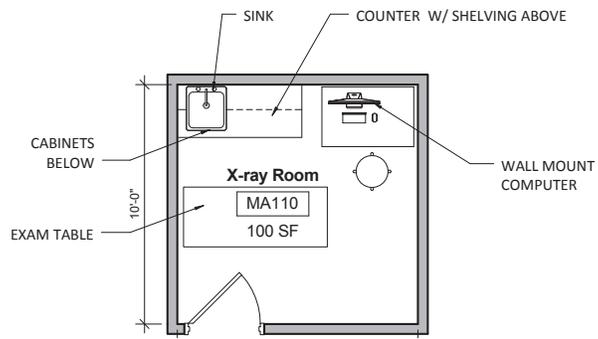
Ventilation:	5 CFM / person + 0.06 CFM / sq. ft.
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	None required.
Plumbing:	1 hand wash sink; water, waste and vent.

ELECTRICAL:

Power:	1 duplex receptacle per wall. 1 GFCI duplex outlet above counter near sink. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.

LIGHTING:

Fixture Type:	T8 or LED Volumetric Lay-in
Accent Lighting:	None required
Foot Candles:	50
Controls:	Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Lab Prep room
Number Required:	1
Total Number:	1
Occupants:	1
Area:	218 SF
Primary Function:	Teaching and practicing lab procedures and skills.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	Linoleum.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	All surfaces must be cleanable.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable upper and lower cabinets, counter top.

MOVEABLE FURNISHINGS:

-Stools.

EQUIPMENT:

-Autoclave, lab equipment.

Technical Requirements

MECHANICAL:

Ventilation: 6-10 AC/hr per ANSI Z9.5

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: Hand wash sink; water, waste and vent.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
2 devices on opposing walls.

Phone/Data:

Video: None required.

Audio: None required.

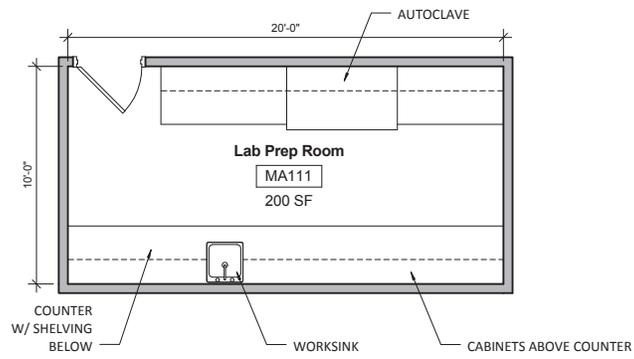
LIGHTING:

Fixture Type: T8 or LED Volumetric Lay-in

Accent Lighting: None required

Foot Candles: 50

Controls: Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Laundry
Number Required:	1
Total Number:	1
Occupants:	1
Area:	100 SF
Primary Function:	Cleaning linens and equipment.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	Labs and exam rooms.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	VCT with 4" rubber base
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Sound insulated ceiling and walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
-Cabinets, counter top.

MOVEABLE FURNISHINGS:
-Linen cart.

EQUIPMENT:
-High capacity res. washer and dryer.

Technical Requirements

MECHANICAL:
Ventilation: 7.5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 74 F

Winter Design Temp: 74 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: Sink, gas, water, waste, and vent.

ELECTRICAL:

Power: 1 duplex receptacle per wall. 1 GFCI duplex receptacle above counter near sink. Power to washer and dryer. Additional capacity for equipment listed.

Phone/Data: None required.

Video: None required.

Audio: None required.

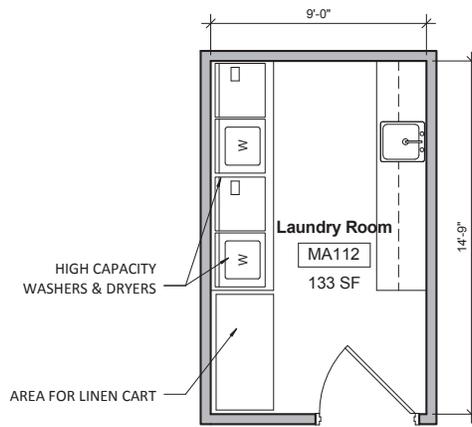
LIGHTING:

Fixture Type: T-8 or LED lay-in.

Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Laundry
Number Required:	2
Total Number:	2
Occupants:	6
Area:	962 SF
Primary Function:	Instruction, demo, practice.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	Simulation lab.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	VCT with 4" rubber base
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Sound insulated ceiling and walls.

CEILING HEIGHT:

Above Finish Floor (AFF):	10'-0" Min.
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PRIVACY/SECURITY:
Windows to view patient lab.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable base cabinets; counter top; curtain dividers; wall-mounted sharps container; whiteboard; tack board;

MOVEABLE FURNISHINGS:

-Rolling storage carts; patient beds; bed-side cabinet., stools, desks.

EQUIPMENT:

-Computer; clock; trash can; bio-hazard waste receptacle; sim-man.

Technical Requirements

MECHANICAL:

Ventilation: 6-10 AC/hr per ANSI z9.5

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: Medical gas outlets and compressed air at stations.

Plumbing: 7 hand sinks, water, waste, and vent.

ELECTRICAL:

Power: 2 duplex receptacles per wall. 2 four-plex receptacles per station. 1 GFCI duplex receptacle above counter near sink. Outlets at bed head to comply with current hospital code requirements. Additional capacity for equipment listed.

Data: 2 devices on opposing walls. 1 device per station. Additional capacity for equipment listed.

Phone: 2 devices on opposing walls.

Video: None required.

Audio: None required.

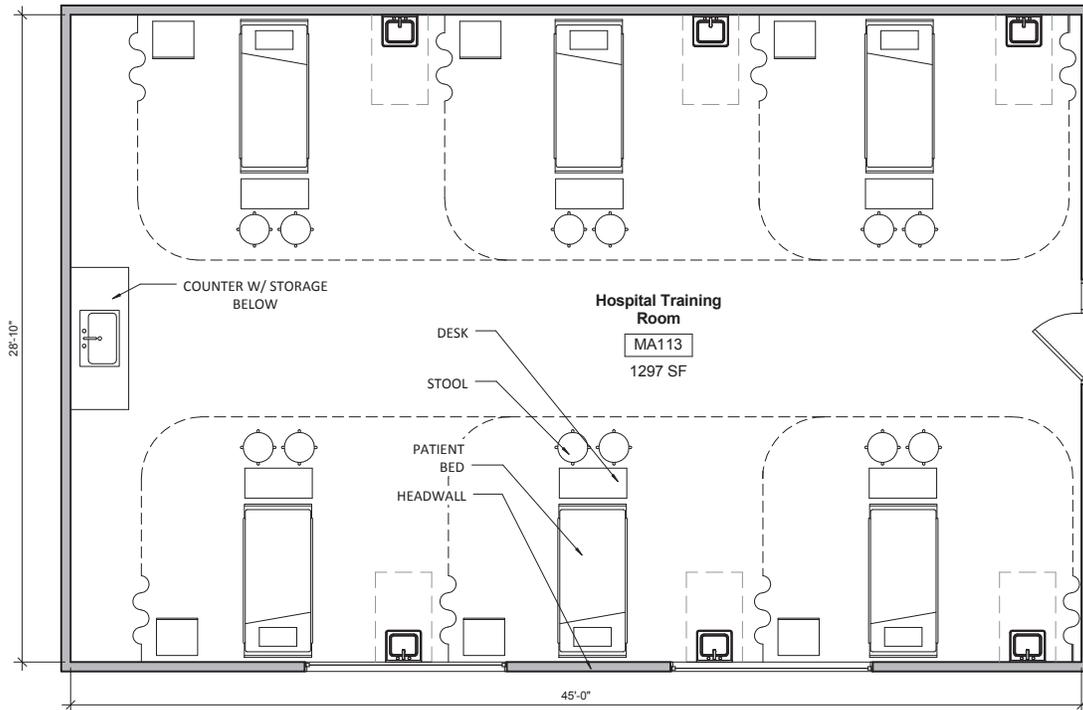
LIGHTING:

Fixture Type: T-8 or LED lay-in

Accent Lighting: Zoned at pt bed

Foot Candles: 30

Controls: Vacancy sensor, daylighting



Space Requirements

SPACE SUMMARY:

Type of Space:	Restroom lab
Number Required:	1
Total Number:	1
Occupants:	1
Area:	80 SF
Primary Function:	PT transfers to toilet and shower; equipment cleaning.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Labs.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Porcelain tile, slope to floor drain.
Walls:	Ceramic tile.
Ceiling:	Painted gypsum board.
Specialty Finishes:	Slip proof floor.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Grab bar; ADA toilet; mirror; dispensers for paper towels; soap; toilet paper; sanitary napkins; lavatory, specimen pass-thru.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-Wheelchair, oxygen.

Technical Requirements

MECHANICAL:

Ventilation: 1 CFM/sq. ft. 100% Exhaust.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 40 (NC/RC)

Special Systems: 5 min. air exchange exhaust.

Plumbing: Wall hung flush valve water closet; wall hung lavatory; floor drain; water, waste, and venting;

ELECTRICAL:

Power: 1 GFCI duplex outlet per wall.

Phone/Data: None required.

Video: None required.

Audio: None required.

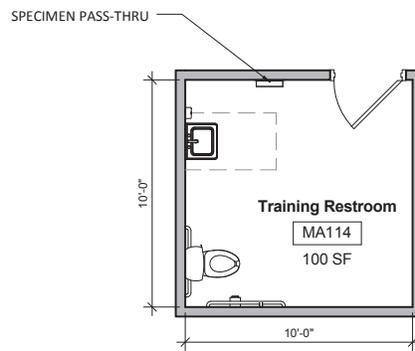
LIGHTING:

Fixture Type: T-8 or LED and/or downlights

Accent Lighting: Required at mirrors.

Foot Candles: 30

Controls: Occupancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Restroom lab
Number Required:	1
Total Number:	1
Occupants:	1
Area:	80 SF
Primary Function:	PT transfers to toilet and shower; equipment cleaning.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Labs.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Porcelain tile, slope to floor drain.
Walls:	Ceramic tile.
Ceiling:	Painted gypsum board.
Specialty Finishes:	Slip proof floor.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Grab bar; ADA toilet; mirror; dispensers for paper towels; soap; toilet paper; sanitary napkins; lavatory, ADA shower; specimen pass-thru.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-Wheelchair, oxygen, shower chair.

Technical Requirements

MECHANICAL:

Ventilation: 1 CFM/sq. ft. 100% Exhaust.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 40 (NC/RC)

Special Systems: 5 min. air exchange exhaust.

Plumbing: Wall hung flush valve water closet; wall hung lavatory; floor drain; shower, water, waste, and venting;

ELECTRICAL:

Power: 1 GFCI duplex outlet per wall.

Phone/Data: None required.

Video: None required.

Audio: None required.

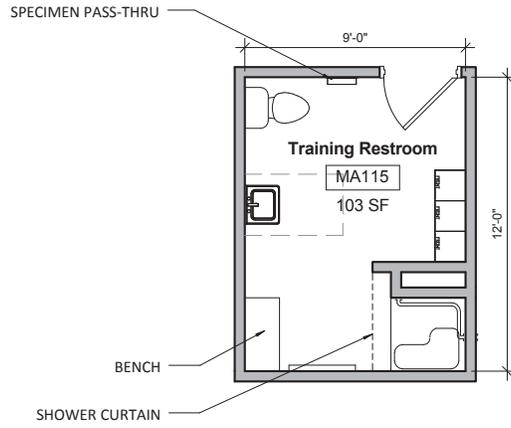
LIGHTING:

Fixture Type: T-8 or LED and/or downlights

Accent Lighting: Required at mirrors.

Foot Candles: 30

Controls: Occupancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Nurses station
Number Required:	1
Total Number:	1
Occupants:	4
Area:	238 SF
Primary Function:	Teaching and practicing MA skills, CNA skills including Bariatric equipment.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	Linoleum.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	All surfaces must be cleanable.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	None Required.
Frame:	None Required.
Special:	None Required.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable upper and lower cabinets, counter top, desk with 4 workstations, shelving, lateral files.

MOVEABLE FURNISHINGS:

-Chairs.

EQUIPMENT:

-Computers, phones.

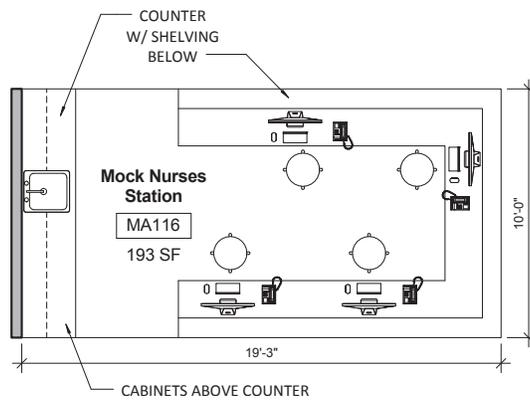
Technical Requirements

MECHANICAL:

Ventilation:	5 CFM/person + 0.06 CFM/sq. ft.
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	30 (NC/RC)
Special Systems:	None required.
Plumbing:	1 Hand wash sinks, water, waste and vent.

ELECTRICAL:

Power:	1 duplex receptacle per wall. 1 GFCI receptacle above counter near sink. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.
Fixture Type:	T8 or LED Volumetric Lay-in
Accent Lighting:	None required
Foot Candles:	40
Controls:	Vacancy sensor



Space Requirements

SPACE SUMMARY:

Type of Space:	Simulation lab.
Number Required:	2
Total Number:	2
Occupants:	1-4
Area:	160 SF
Primary Function:	PT room for State Nursing Assistant skill evaluations; private PT room for instruction/practice.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Simulation control station.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	Ceramic tile.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Sound insulated walls and ceiling.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation. Large door for bed.

Architectural Requirements

WINDOWS:

Type:	Interior.
Glazing:	Clear glass.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable upper and lower cabinets, counter top.

MOVEABLE FURNISHINGS:

-Small desk, chairs, hospital bed, overhead table, bedside cabinet, wheelchair.

EQUIPMENT:

-Mannequin, trash can, bio-hazard waste receptacle, computer for NA skills evaluation.

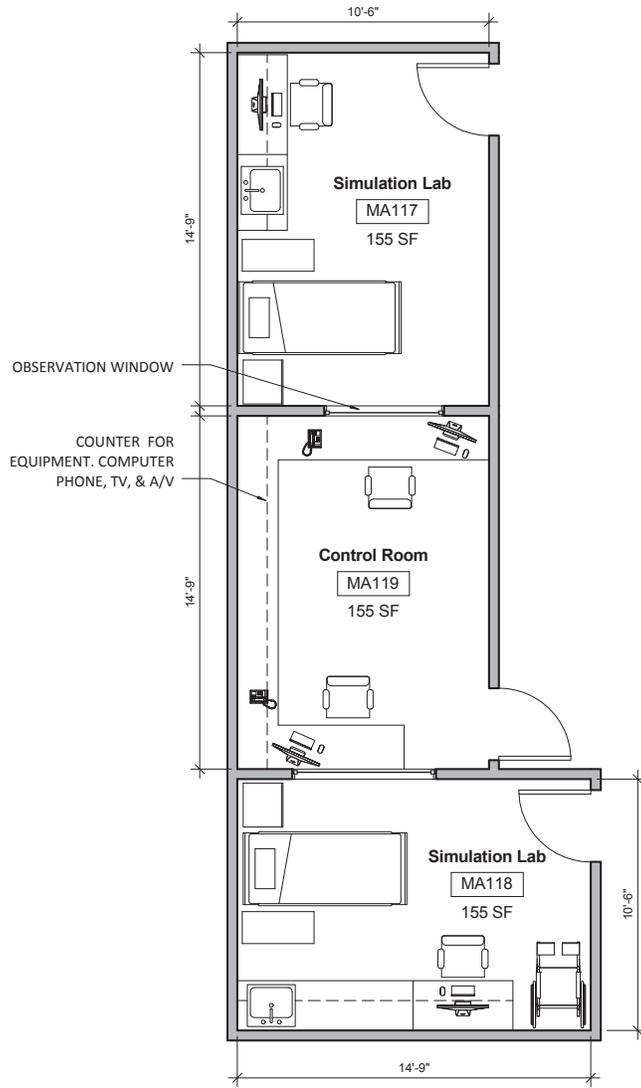
Technical Requirements

MECHANICAL:

Ventilation:	6-10 AC/hr per ANSI Z9.5
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	Medical gas; compressed air.
Plumbing:	Hand wash sink, water, waste and vent.
ELECTRICAL:	
Power:	1 duplex receptacle per wall. 2 four-plex receptacles at bed. Outlets at bed head to comply with current hospital code requirements. 1 GFCI duplex receptacle above counter near sink. Additional capacity for equipment listed.
Data:	1 device at bed and 1 per wall.
Phone:	1 device.
Video:	PTZ camera to control room.
Audio:	Ceiling speakers with volume control.

LIGHTING:

Fixture Type:	T8 or LED lay-in
Accent Lighting:	Zoned at pt bed
Foot Candles:	50
Controls:	Vacancy Sensor



Space Requirements

SPACE SUMMARY:

Type of Space:	Control station.
Number Required:	1
Total Number:	1
Occupants:	1-2
Area:	124 SF
Primary Function:	Control room for simulation labs; instructor use for testing; could be used for student intervention.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Simulation lab.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	Carpet
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Sound insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
Window into simulation labs.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation. Large door for bed.

Architectural Requirements

WINDOWS:	
Type:	Interior.
Glazing:	Clear glass.
Natural Light:	None required.

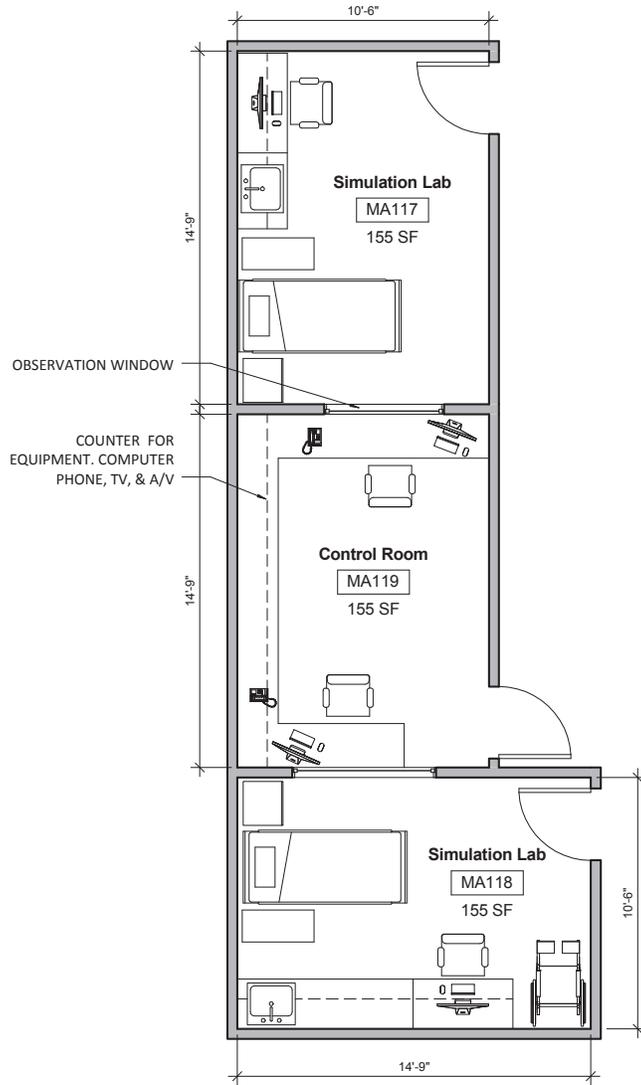
CASEWORK/FIXED EQUIPMENT:
-Lockable wall cabinets; countertop.

MOVEABLE FURNISHINGS:
-Chairs.

EQUIPMENT:
-Computer; phone; TV.

Technical Requirements

MECHANICAL:	
Ventilation:	5 CFM/person + 0.06 CFM/sq. ft.
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	30 (NC/RC)
Special Systems:	None required.
Plumbing:	None required.
ELECTRICAL:	
Power:	1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	Security camera.
Audio:	Speaker with volume control.
LIGHTING:	
Fixture Type:	T8 or LED Volumetric lay-in
Accent Lighting:	None required
Foot Candles:	40
Controls:	Vacancy sensor



Space Requirements

SPACE SUMMARY:

Type of Space:	Computer lab
Number Required:	1
Total Number:	1
Occupants:	24
Area:	968 SF
Primary Function:	Individual computer work stations.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF):	10'-0" Min.
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PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:
-None required.

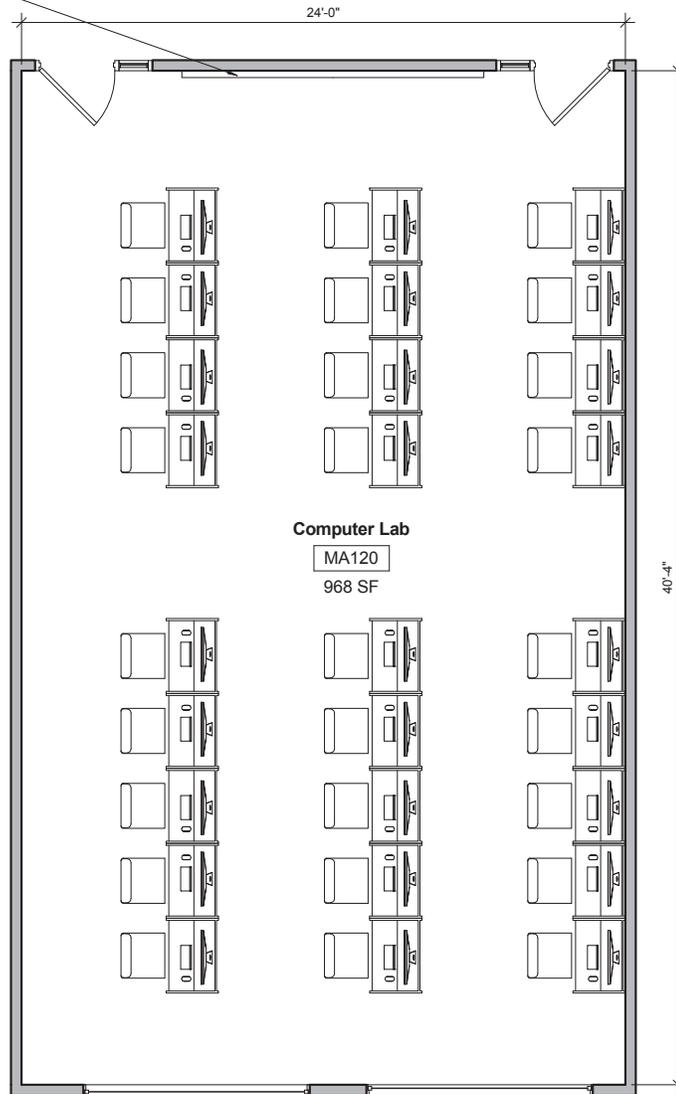
MOVEABLE FURNISHINGS:
-Desks and chairs.

EQUIPMENT:
-Computers; clock.

Technical Requirements

MECHANICAL:	
Ventilation:	10 CFM/person + 0.12 CFM/sq. ft.
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	30 (NC/RC)
Special Systems:	Dedicated computer A/C units.
Plumbing:	None required.
ELECTRICAL:	
Power:	2 duplex receptacle per wall. 1 duplex receptacle per computer station. Additional capacity for equipment listed.
Data:	2 devices per wall, 1 per computer station.
Phone:	2 devices per wall.
Video:	None required.
Audio:	None required.
LIGHTING:	
Fixture Type:	T8 or LED Volumetric lay-in
Accent Lighting:	None required
Foot Candles:	40
Controls:	Vacancy sensor, daylighting

WHITEBOARD AND
TACKBOARD TYP.



Space Requirements

SPACE SUMMARY:

Type of Space: Workroom

Number Required: 1

Total Number: 1

Occupants: 1-2

Area: 100 SF

Primary Function: Adequate equipment and counter space for copying, printing, and document assembly.

RELATIONSHIPS:

Location: Level 3

Adjacencies: None Required.

Separation: None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, and natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustic ceiling tile.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Upper and lower cabinets; counter top; whiteboard; tack board.

MOVEABLE FURNISHINGS:

-Work table, chair.

EQUIPMENT:

-Computer; 2 monitors; printers; label maker; copy machine; desktop speaker phone; paper shredder; fax machine.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

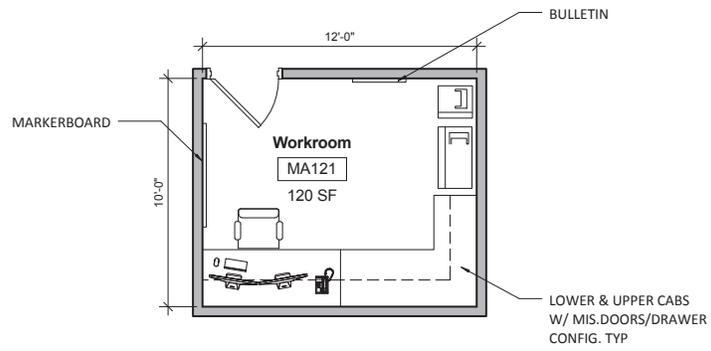
LIGHTING:

Fixture Type: T8 or LED volumetric lay-in

Accent Lighting: LED under upper cabinets.

Foot Candles: 40

Controls: Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Office.**Number Required:** 1**Total Number:** 1**Occupants:** 1-3**Area:** 120 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 3**Adjacencies:** Labs.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Painted gypsum board.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:

None required.

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum with glazed sidelight.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: Exterior.**Glazing:** Low-E.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs.

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

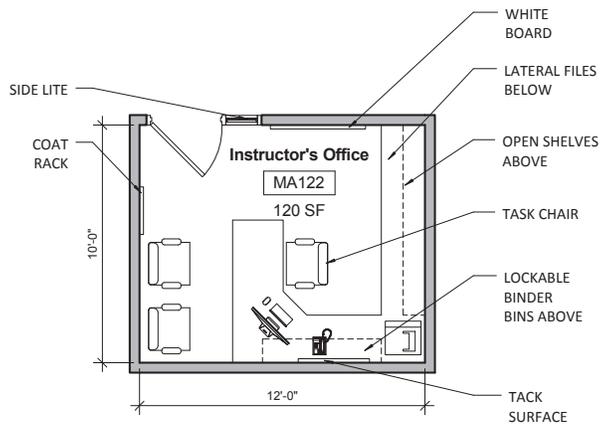
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.**Phone/Data:** 2 devices on opposing walls.**Video:** None required.**Audio:** None required.

LIGHTING:

Fixture Type: LED Volumetric lay-in or Suspended Linear**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40-50 Task**Controls:** Vacancy sensor, daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-4
Area:	160 SF
Primary Function:	Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Labs.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Painted gypsum board.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

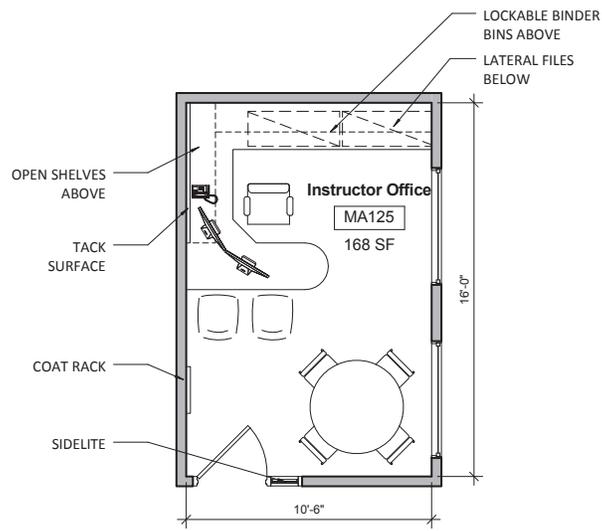
LIGHTING:

Fixture Type: LED Volumetric lay-in or Suspended Linear

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy sensor, daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space: Open workstation**Number Required:** 4**Total Number:** 4**Occupants:** 1**Area:** 68 SF**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 3**Adjacencies:** Waiting area.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Clean, organized, welcoming, and comfortable.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: None required.**Frame:** None required.**Special:** None required.**Architectural Requirements**

WINDOWS:

Type: None required.**Glazing:** None required.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Desk; Shelves and locking storage; Tackboard.

MOVEABLE FURNISHINGS:

-Staff rolling chair.

EQUIPMENT:

-Computer; Monitor; Phone; Trash can.

Technical Requirements

MECHANICAL:

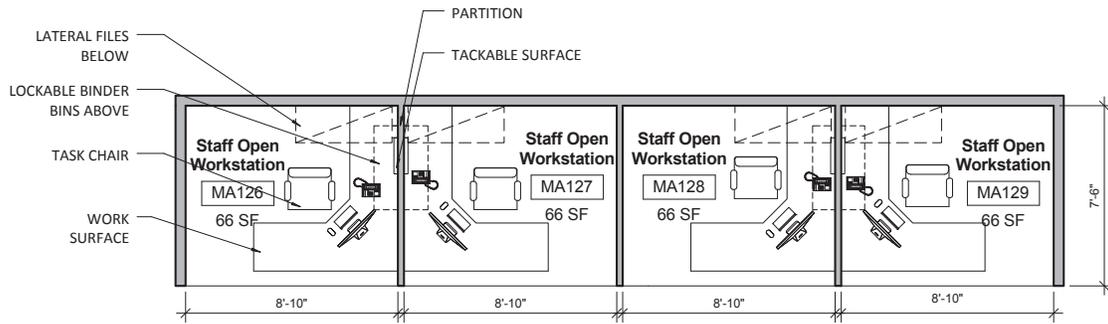
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.**Phone/Data:** 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: T8 or LED Volumetric lay-in or Suspended Linear**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40-50 Task**Controls:** Vacancy sensor, daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space: Conference Room

Number Required: 1

Total Number: 1

Occupants: 6

Area: 179 SF

Primary Function: Private and professional conference area, equipped to accommodate and display all current technology formats.

RELATIONSHIPS:

Location: Level 3

Adjacencies: Shared with Pharmacy Technology.

Separation: None required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-Large table; 6 chairs; whiteboard; media chart.

EQUIPMENT:

-60" LCD, conference telephone.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. 2 four-plex floor box under table. Additional capacity for equipment listed.

Phone/Data: 1 devices on opposing walls. 1 floor box under table.

Video: A/V system with internet connection.

Audio: Speaker with volume control.

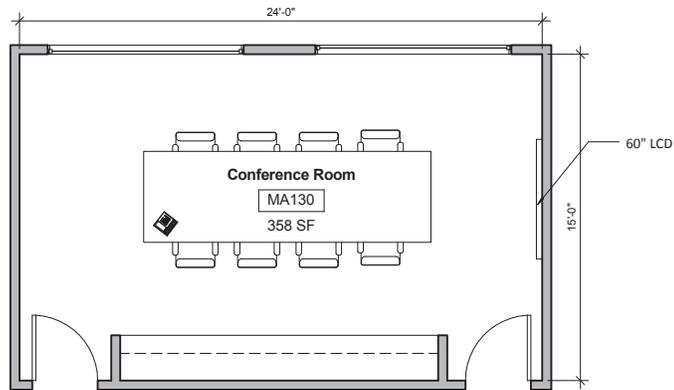
LIGHTING:

Fixture Type: LED lay-in & decorative

Accent Lighting: LED

Foot Candles: 50

Controls: Vacancy sensor, daylighting w/continuous dimming, preset scene dimming controller



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	150 SF
Primary Function:	To provide storage for supplies, equipment, files, records, etc.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
 Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:
Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
 None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:
 -Lateral filing cabinets, open shelves, 24"x24" safe.

MOVEABLE FURNISHINGS:
 -None required.

EQUIPMENT:
 -None required.

Technical Requirements

MECHANICAL:
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Outlets for EKG. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

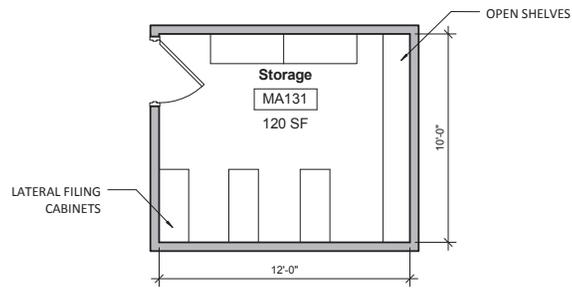
LIGHTING:

Fixture Type: T8 or LED lay-in

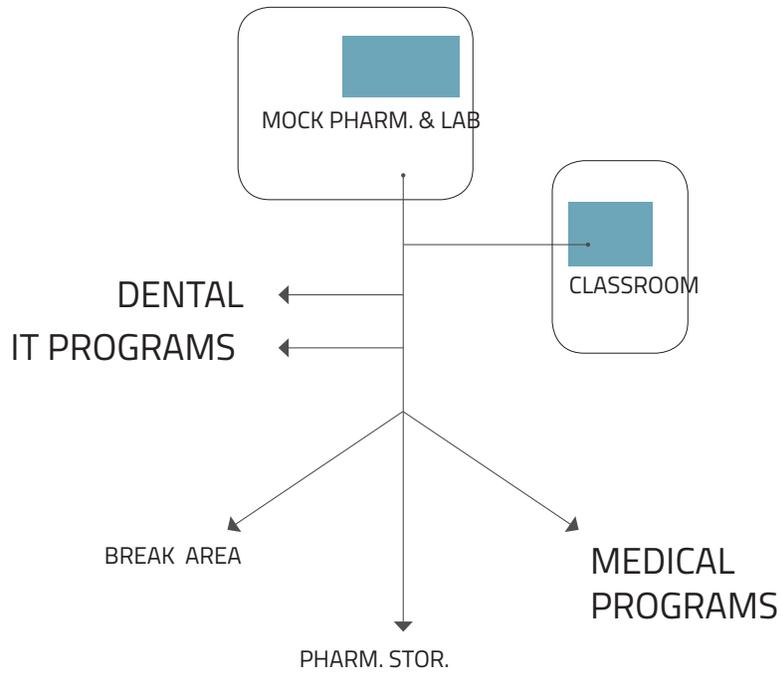
Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy sensor.



Adjacency Diagram >>
Pharmacy Technology



Programming Requirements >> CLASSROOM

Pharmacy Technology

Space Requirements

SPACE SUMMARY:

Type of Space:	Classroom
Number Required:	1
Total Number:	1
Occupants:	24
Area:	720 SF
Primary Function:	Teaching / learning wide range of Pharmacy Technology.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	Mock pharmacy.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Inviting, invigorating, flexible.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

Interior windows with blinds.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter top; white board; tack board.

MOVEABLE FURNISHINGS:

-24 student desks/chairs; 1 instructor desk/chair

EQUIPMENT:

-2 computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall and at instructor station. Floor outlets at student desks. Additional capacity for equipment listed.

Data: 2 devices on opposing walls and at instructor station. 1 wireless airport. Additional capacity for equipment listed.

Phone: 2 devices on opposing walls and at instructor station.

Video: A/V system with internet connection.

Audio: Speakers with volume control.

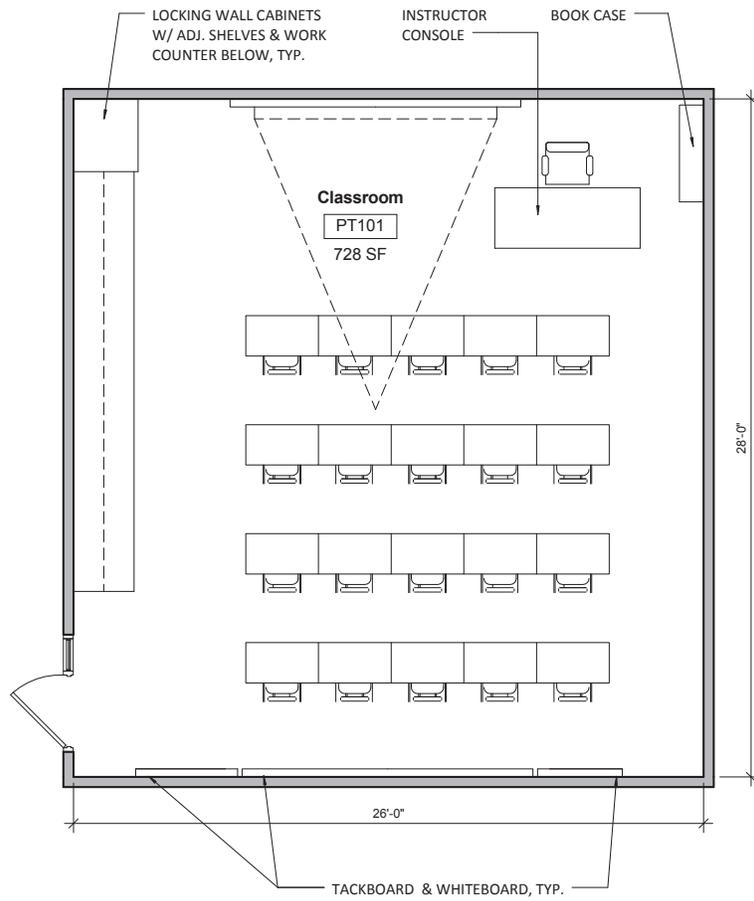
LIGHTING:

Fixture Type: T8 or LED Volumetric lay-in

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy sensor, zoned dimmable w/preset scenes, daylighting



Space Requirements

SPACE SUMMARY:

Type of Space: Mock Pharmacy

Number Required: 1

Total Number: 1

Occupants: 10

Area: 450 SF

Primary Function: Teaching, practicing Pharmacy Technology classes; Pharmacology classes to simulate a pharmacy.

RELATIONSHIPS:

Location: Level 3

Adjacencies: Pharmacy classroom, Instructor's office.

Separation: None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Calm, attractive, professional.

FINISHES:

Floor: Linoleum.

Walls: Painted gypsum board.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: All surfaces must be cleanable.

Sound: None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: None Required.

Frame: None Required.

Special: None Required.

Architectural Requirements

WINDOWS:

Type: interior

Glazing: Clear sliding.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable upper and lower cabinets, counter top, lockable shelving, coat rack.

MOVEABLE FURNISHINGS:

-Filing cabinet, chairs, tables.

EQUIPMENT:

-Computers, printer, under counter fridge, storage bins, pencil sharpener, trash can, sharps, scales, counting equipment, barcode readers, cash register, clock.

Technical Requirements

MECHANICAL:

Ventilation: 6-10 AC/hr per ANSI Z9.5

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

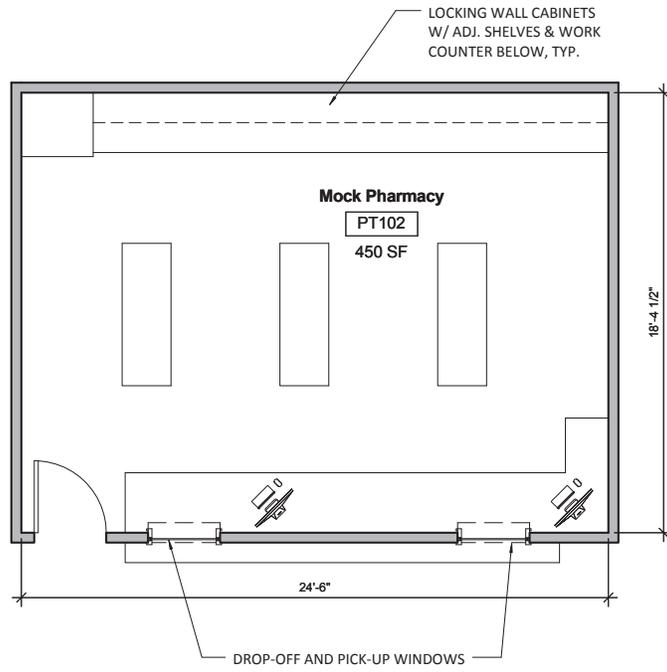
LIGHTING:

Fixture Type: T8 or LED lay-in volumetric

Accent Lighting: LED under upper cabinet

Foot Candles: 50

Controls: Vacancy sensor



Space Requirements

SPACE SUMMARY:

Type of Space:	Pharmacy Lab
Number Required:	1
Total Number:	1
Occupants:	10
Area:	450 SF
Primary Function:	Teaching, practicing Pharmacy Technology classes.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	Waiting area.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	Linoleum.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	All surfaces must be cleanable.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	None Required.
Frame:	None Required.
Special:	None Required.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Abundant counter space; lockable shelving; coat rack; lockable storage cabinets.

MOVEABLE FURNISHINGS:

-Filing cabinet; tables; chairs;

EQUIPMENT:

-Computers; printer; bunsen burners; under counter fridge; storage bins; pencil sharpener; trash can; sharps; scales; counting equipment; barcode readers; cash register; clock.

Technical Requirements

MECHANICAL:

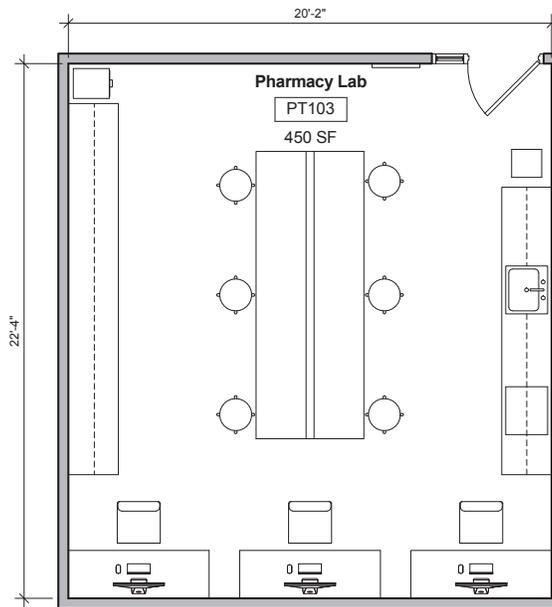
Ventilation:	6-10 AC/hr per ANSI Z9.5
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	None required.
Plumbing:	Hand wash sinks, water, waste and vent.

ELECTRICAL:

Power:	2 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.

LIGHTING:

Fixture Type:	T8 or LED lay-in volumetric
Accent Lighting:	LED under upper cabinet
Foot Candles:	50
Controls:	Vacancy Sensor



Space Requirements

SPACE SUMMARY:

Type of Space: Office.

Number Required: 1

Total Number: 1

Occupants: 1-4

Area: 160 SF

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 3

Adjacencies: None Required.

Separation: Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Painted gypsum board.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

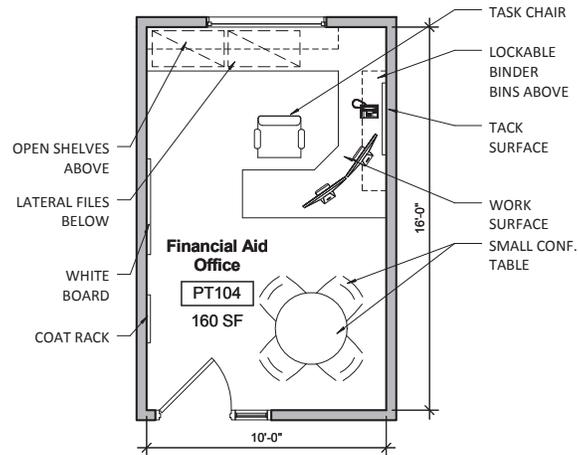
LIGHTING:

Fixture Type: LED Volumetric lay-in or Suspended Linear

Accent Lighting: Task lighting at work surface

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy sensor, Daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	120 SF
Primary Function:	To provide storage for records, documents, and supplies.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
 Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
 None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets, open shelves, 24"x24" safe.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

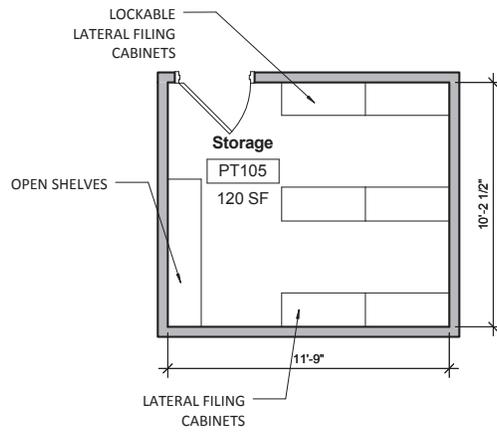
Technical Requirements

MECHANICAL:

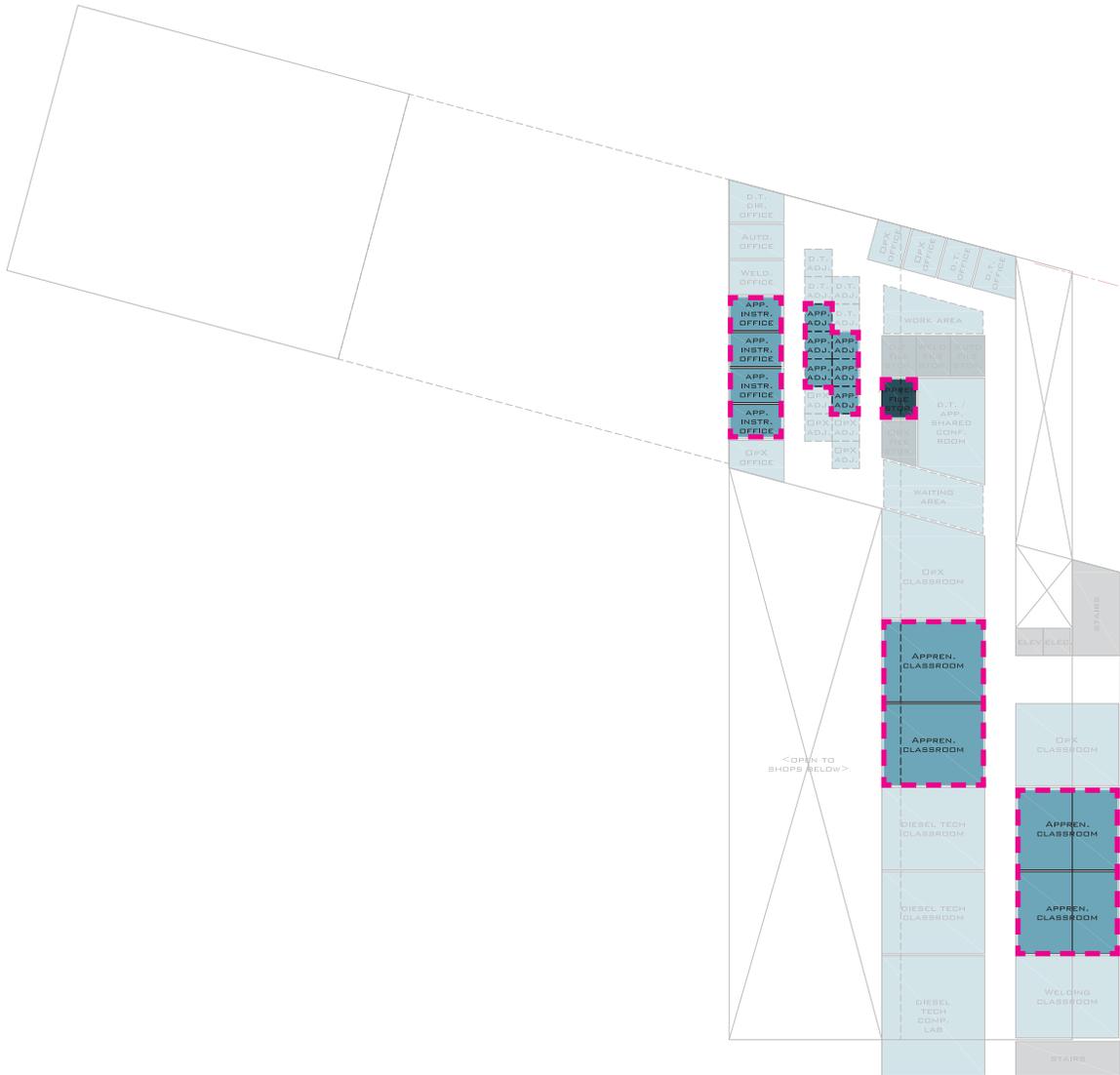
Ventilation:	5 CFM/person + 0.06 CFM/sq. ft.
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	None required.
Plumbing:	None required.

ELECTRICAL:

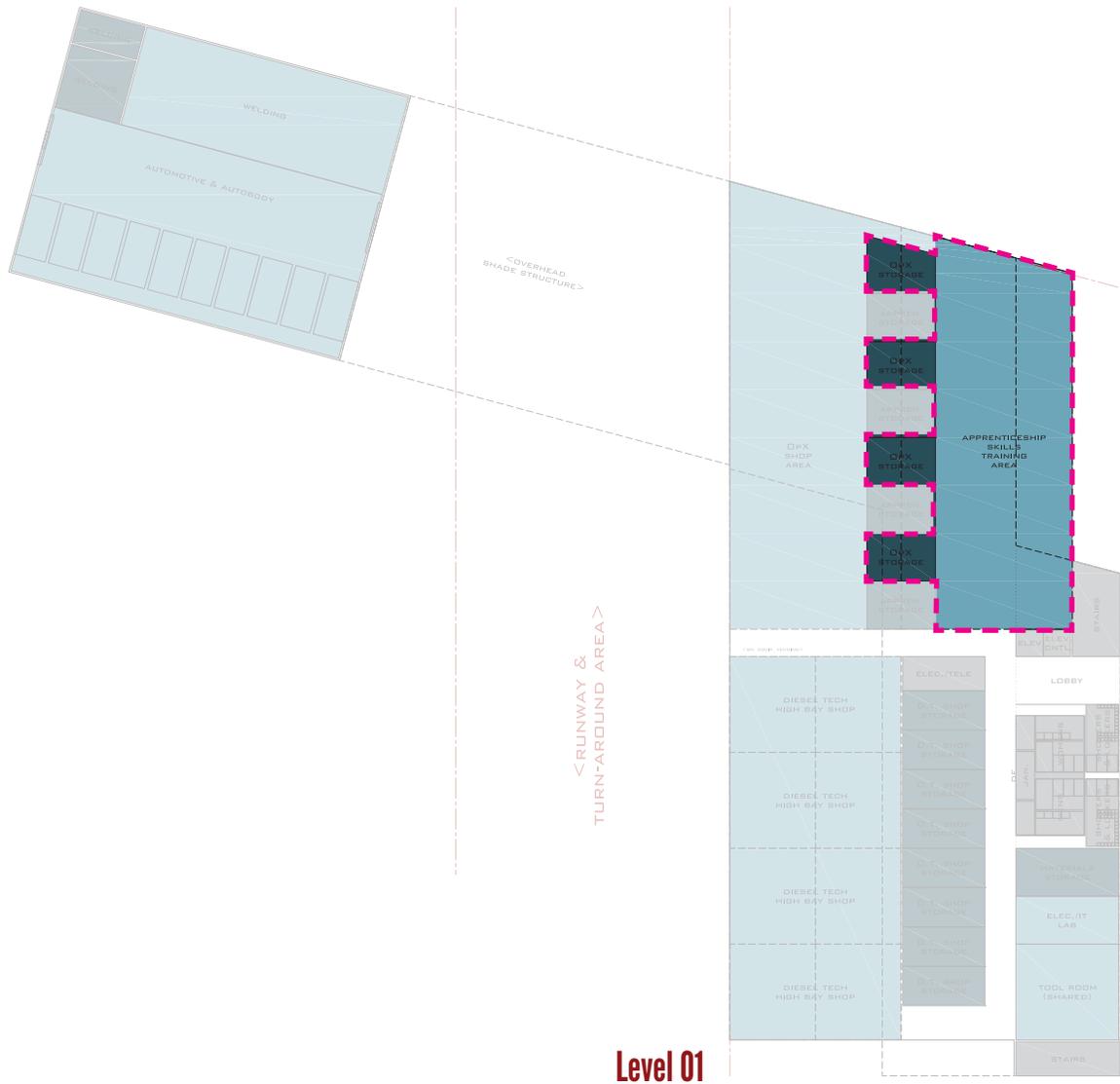
Power:	2 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.
LIGHTING:	
Fixture Type:	T8 or LED lay-in
Accent Lighting:	None required.
Foot Candles:	20
Controls:	Vacancy sensor.



Programming Requirements >>
Apprenticeship / HVAC



<< Programming Requirements
Apprenticeship / HVAC



APPRENTICE / HVAC

It is imperative that the four Apprentice programs (HVAC/Electrical/Plumbing/Construction) be located adjacent to the existing runway (with an overhead door) – to provide convenient access to the high-bay shop space. Storage areas must be provided immediately adjacent to the shop space. Interior support spaces such as the shared Tool Room and Materials Storage should be located with a degree of convenient proximity, but immediate adjacency is not required. Classrooms and offices may be clustered in zones and shared with the other Industrial Trades programs to maximize efficiencies and shared resources. Natural daylight and views should be maximized to the extent possible.

Space Requirements

SPACE SUMMARY:

Type of Space:	Classroom
Number Required:	1
Total Number:	1
Occupants:	24
Area:	720 SF
Primary Function:	Teaching / learning wide range of Apprentice / HVAC classes.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Inviting, invigorating, flexible.

FINISHES:

Floor:	Carpet or sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF):	10'-0" Min.
----------------------------------	-------------

PRIVACY/SECURITY:
Interior windows with blinds.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter top; white board; tack board.

MOVEABLE FURNISHINGS:

-24 student desks/chairs; instructor desk/chair

EQUIPMENT:

-2 computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall and at instructor station. Floor outlets at student desks. Additional capacity for equipment listed.

Data: 2 devices on opposing walls and at instructor station. 1 wireless airport. Additional capacity for equipment listed.

Phone: 2 devices on opposing walls and at instructor station.

Video: A/V system with internet connection.

Audio: Speakers with volume control.

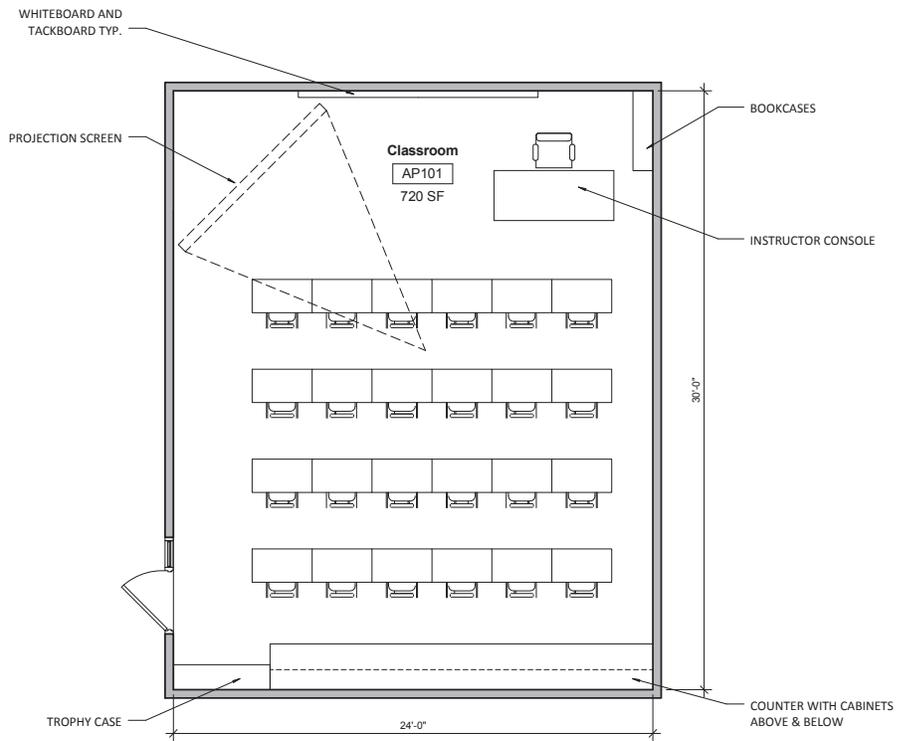
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy Sensor, zoned, dimmable w/ preset scenes, Daylighting.



Space Requirements

SPACE SUMMARY:

Type of Space:	Workshop.
Number Required:	1
Total Number:	1
Occupants:	24
Area:	4357 SF
Primary Function:	To provide work and learning area for apprentice / HVAC area.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Storage.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Functional; clean lines; organized.

FINISHES:

Floor:	Sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Open.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 18'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-Rolling tool cabinets, metal shop tables, etc.

EQUIPMENT:
-HVAC equipment and tools.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

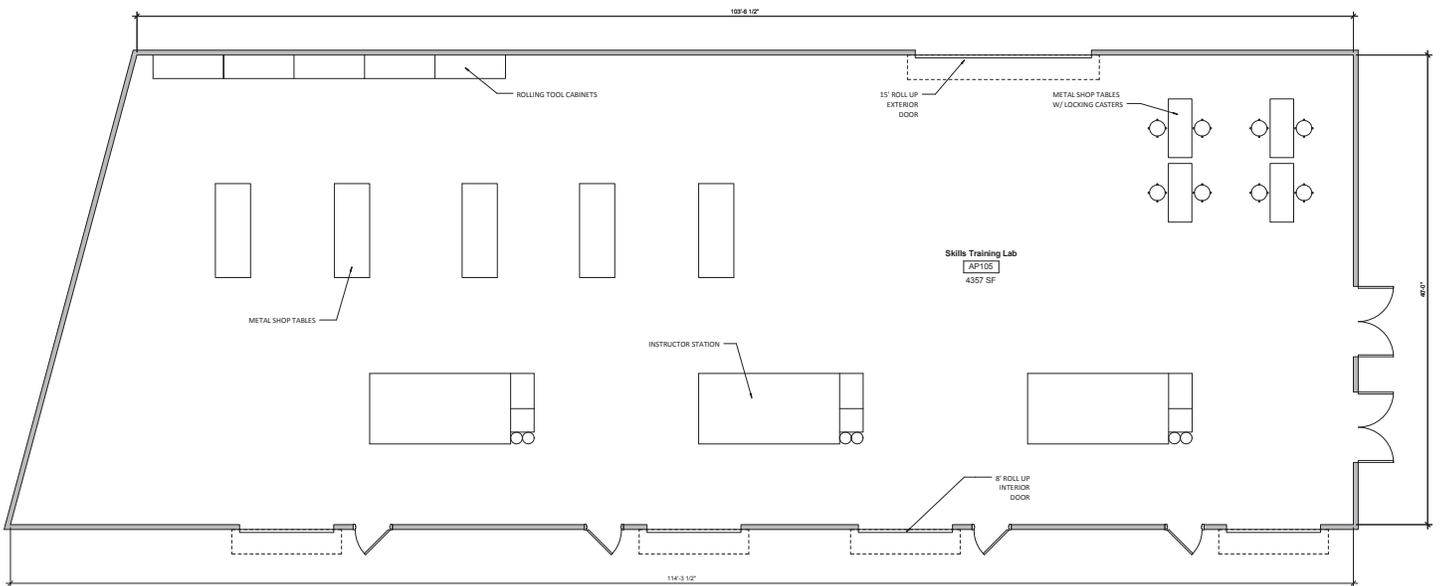
LIGHTING:

Fixture Type: T-8 or LED.

Accent Lighting: None required.

Foot Candles: 40

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-4
Area:	160 SF
Primary Function:	Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Painted gypsum board.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

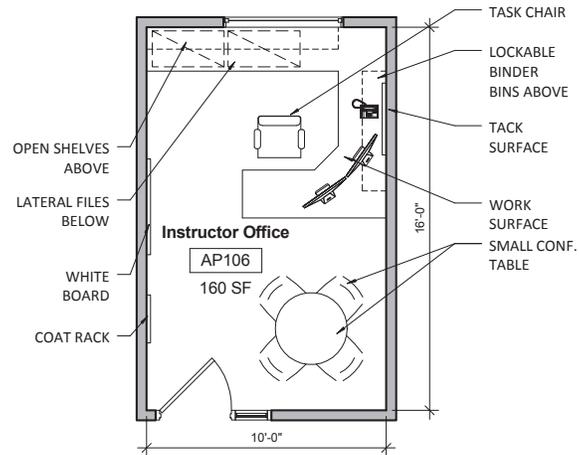
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space: Open workstation**Number Required:** 4**Total Number:** 4**Occupants:** 1**Area:** 68 SF ea.**Primary Function:** Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2**Adjacencies:** None required.**Separation:** Mechanical and elevator rooms, noisy public areas.**Architectural Requirements**

DESIGN/AESTHETIC:

Clean, organized, welcoming, and comfortable.

FINISHES:

Floor: Carpet.**Walls:** Painted gypsum board.**Ceiling:** Acoustical ceiling tile.**Specialty Finishes:** None required.**Sound:** Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: None required.**Frame:** None required.**Special:** None required.**Architectural Requirements**

WINDOWS:

Type: None required.**Glazing:** None required.**Natural Light:** Desirable.

CASEWORK/FIXED EQUIPMENT:

-Desk; Shelves and locking storage; Tackboard.

MOVEABLE FURNISHINGS:

-Staff rolling chair.

EQUIPMENT:

-Computer; Monitor; Phone; Trash can.

Technical Requirements

MECHANICAL:

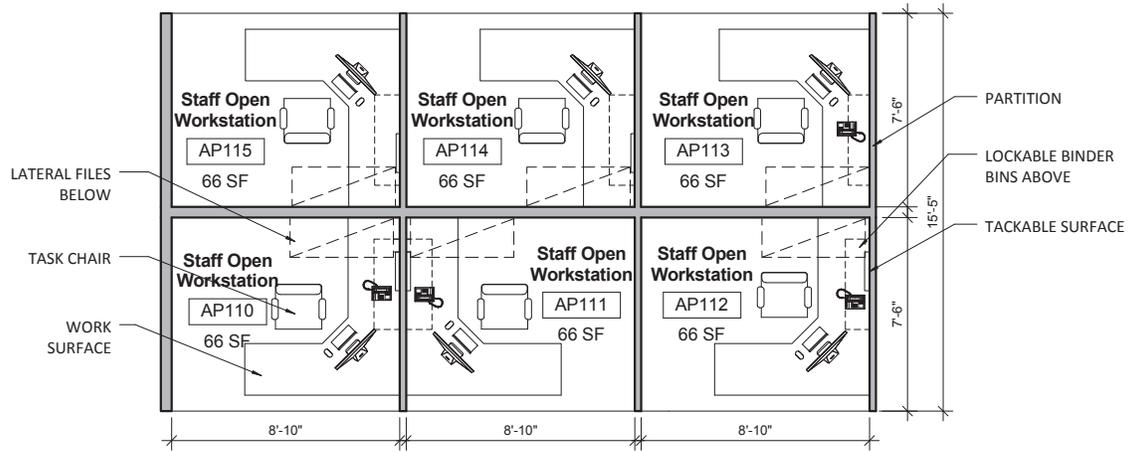
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 35 (NC/RC)**Special Systems:** None required.**Plumbing:** None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.**Video:** Rough-in for future capacity.**Audio:** None required.

LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.**Accent Lighting:** Task lighting at work surface.**Foot Candles:** 20-30 Ambient / 40-50 Task**Controls:** Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Reception / Waiting
Number Required:	1
Total Number:	1
Occupants:	8
Area:	414 SF
Primary Function:	Waiting area with displays/program information.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	Instructor offices.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, welcoming, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	None required.
Frame:	None required.
Special:	None required.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-Couch, comfortable chair, side table, coffee table.

EQUIPMENT:
-Computer;

Technical Requirements

MECHANICAL:
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

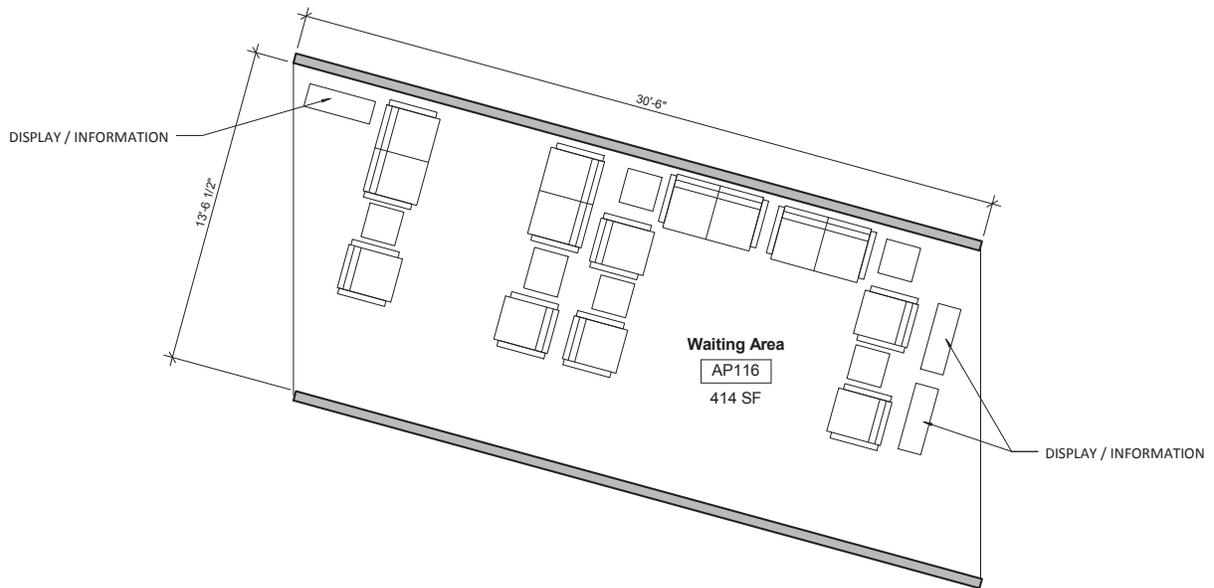
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: 2 walls for pictures and certificates.

Foot Candles: 20

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Workroom
Number Required:	1
Total Number:	1
Occupants:	1-2
Area:	300 SF
Primary Function:	Adequate equipment and counter space for copying, printing, and document assembly.

RELATIONSHIPS:

Location:	Level 2
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Upper and lower cabinets; counter top; whiteboard; tack board.

MOVEABLE FURNISHINGS:

-Work table, chair.

EQUIPMENT:

-Computer; 2 monitors; printers; label maker; copy machine; desktop speaker phone; paper shredder; fax machine.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

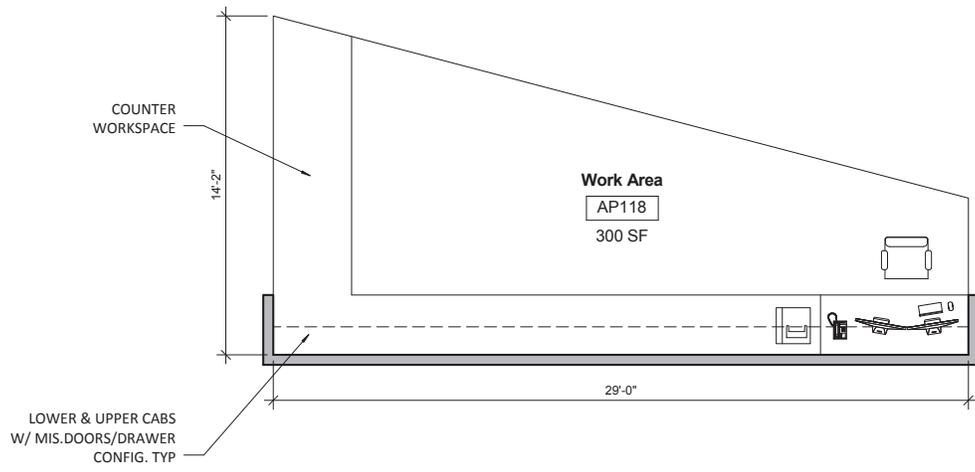
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear..

Accent Lighting: Under upper cabinets.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	280 SF
Primary Function:	To provide storage for records, documents, and supplies.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Painted gypsum board.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets, open shelves, 24"x24" safe.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

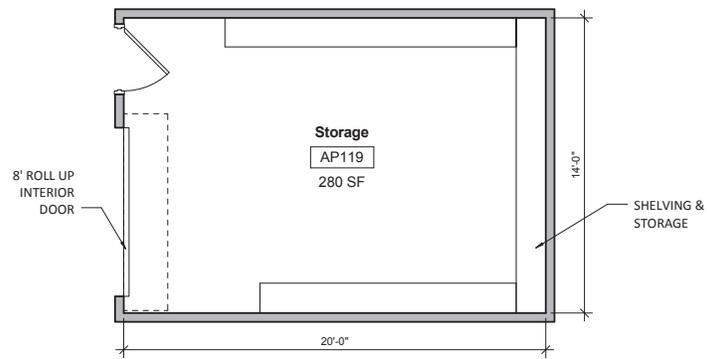
LIGHTING:

Fixture Type: T-8 or LED Lay-in.

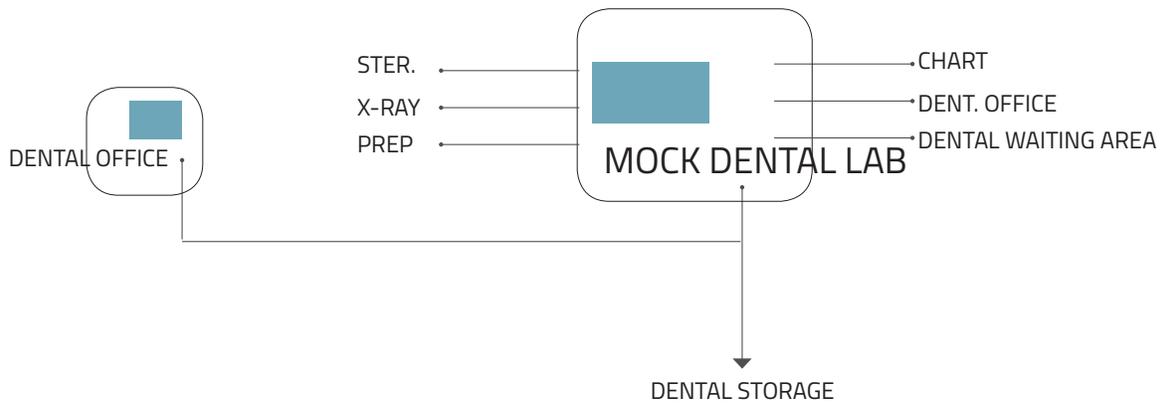
Accent Lighting: None required.

Foot Candles: 20

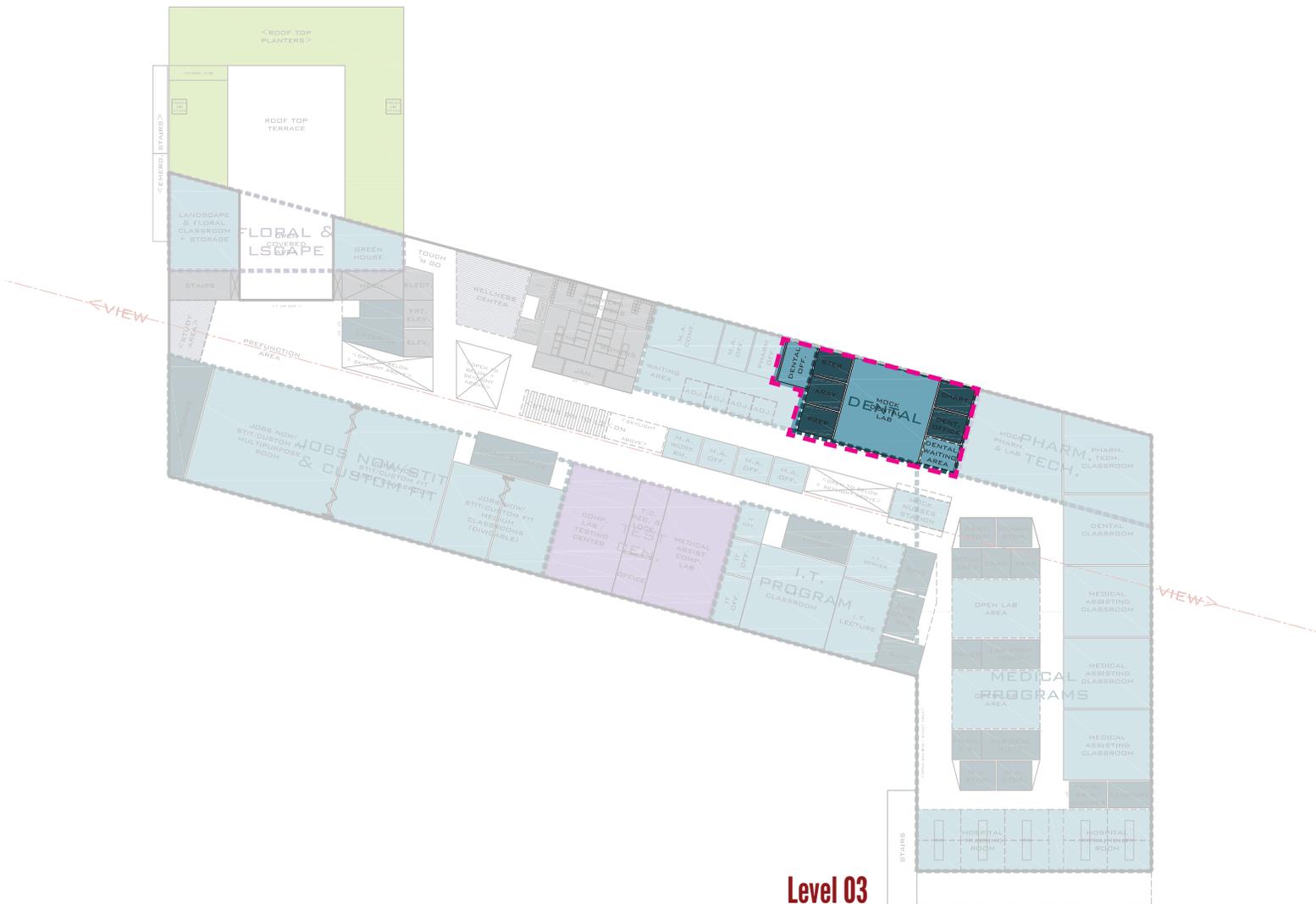
Controls: Vacancy Sensor.



Dental Assisting and Dental Office



<< Programming Requirements Dental Assisting and Dental Office



Level 03

DENTAL ASSISTING AND DENTAL OFFICE

Dental Office Assisting should be clustered with the Medical Assisting and Pharmacy Technology programs to maximize efficiency and shared resources. As illustrated in the Test-Fit floor plan, level 3 provides an ideal location for these programs. Classrooms and labs should be located on exterior walls with views and natural daylight to the extent possible. In contrast, support spaces should be located towards the interior of the plan. The office suite should be located near the main entrance to the suite to maximize accessibility for students and instructors. This office suite may be shared with Medical Assisting and the Dental programs to maximize efficiency and shared resources (such as a waiting area, conference rooms, work rooms, etc). Dental Assisting is a new program and requirements should be carefully vetted at the beginning of the subsequent design phase for all proper accommodations. Natural daylight and views should be maximized to the extent possible..

Programming Requirements >> CLASSROOM

Dental Assisting and Dental Office

Space Requirements

SPACE SUMMARY:

Type of Space:	Classroom
Number Required:	1
Total Number:	1
Occupants:	24
Area:	728 SF
Primary Function:	Teaching / learning wide range of Dental assisting and dental office courses.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Inviting, invigorating, flexible.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
Interior windows with blinds.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter top; white board; tack board.

MOVEABLE FURNISHINGS:

-24 student desks/chairs; 1 instructor desk/chair

EQUIPMENT:

- Computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall and at instructor station. Floor outlets at student desks. Additional capacity for equipment listed.

Data: 2 devices on opposing walls and at instructor station. 1 wireless airport. Additional capacity for equipment listed.

Phone: 2 devices on opposing walls and at instructor station.

Video: A/V system with internet connection.

Audio: Speakers with volume control.

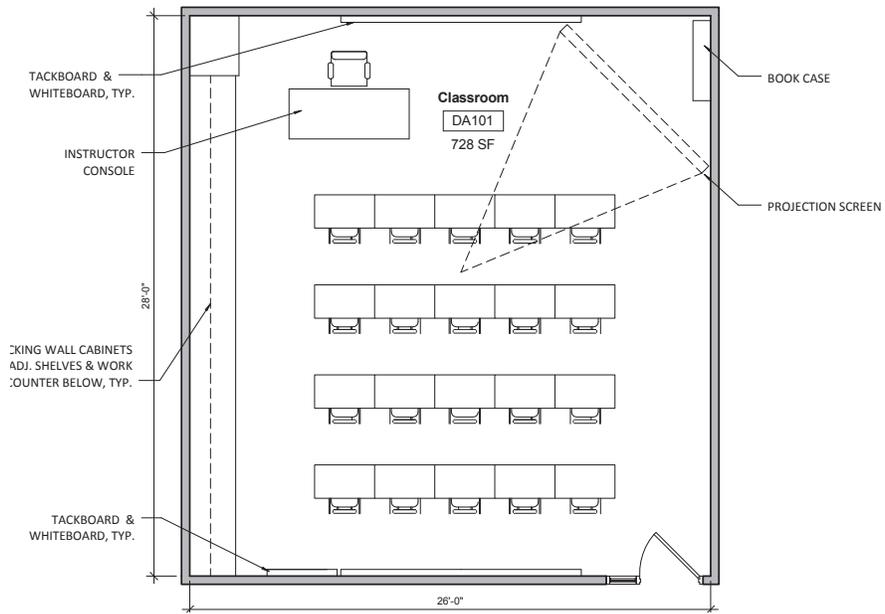
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in.

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy Sensor, zoned, dimmable w/ preset scenes, daylighting.



Programming Requirements >> DENTAL LAB

Dental Assisting and Dental Office

Space Requirements

SPACE SUMMARY:

Type of Space:	Dental Lab
Number Required:	1
Total Number:	1
Occupants:	6
Area:	922 SF
Primary Function:	Teaching and practicing Dental skills in a mock dental office setting.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Dental reception, waiting area, and charting.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	Lab-grade floor finish.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	All surfaces must be cleanable.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	Desirable

CASEWORK/FIXED EQUIPMENT:

-Lockable upper and lower cabinets, counter top, whiteboard, tackboard.

MOVEABLE FURNISHINGS:

-Stools.

EQUIPMENT:

-Dental chairs, dental equipment, computers, etc.

Technical Requirements

MECHANICAL:

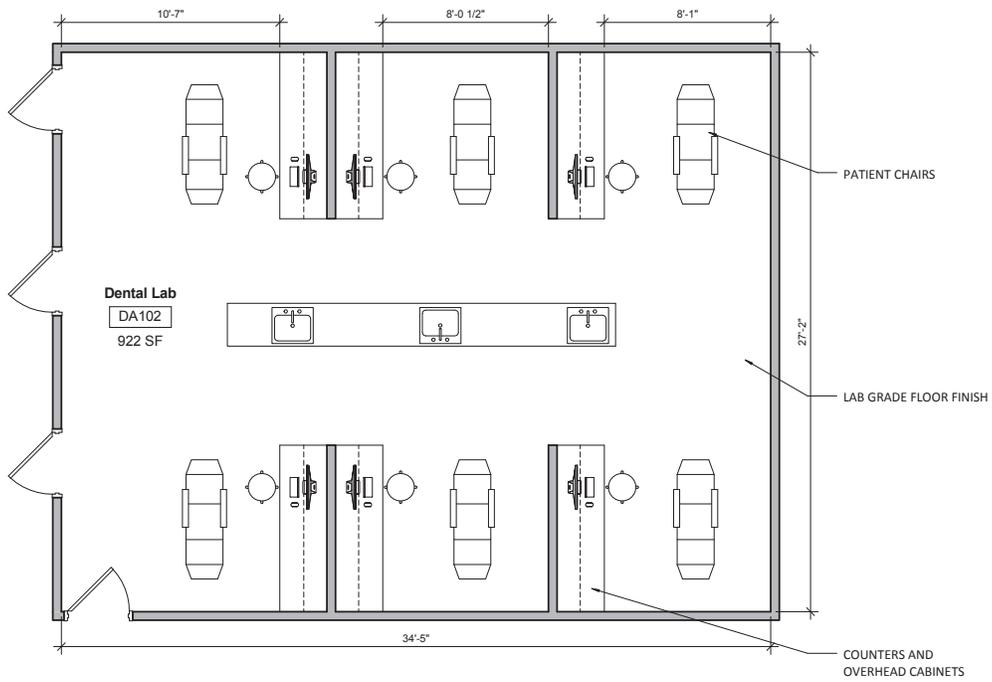
Ventilation:	6-10 AC/hr per ANSI Z9.5
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	None required.
Plumbing:	3 Hand wash sinks, water, waste and vent.

ELECTRICAL:

Power:	1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.

LIGHTING:

Fixture Type:	T-8 or LED Lay-in Volumetric.
Accent Lighting:	LED under upper cabinet.
Foot Candles:	50
Controls:	Vacancy Sensor.



Programming Requirements >> LAB PREP ROOM

Dental Assisting and Dental Office

Space Requirements

SPACE SUMMARY:

Type of Space:	Lab prep room.
Number Required:	1
Total Number:	1
Occupants:	1
Area:	128 SF
Primary Function:	Dental lab for practicing skills and procedures.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	Dental lab.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	Lab-grade floor finish.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	All surfaces must be cleanable.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	None Required.
Frame:	None Required.
Special:	None Required.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable upper and lower cabinets, counter top, whiteboard, tackboard.

MOVEABLE FURNISHINGS:

-Small desk, chairs.

EQUIPMENT:

-Lab prep equipment.

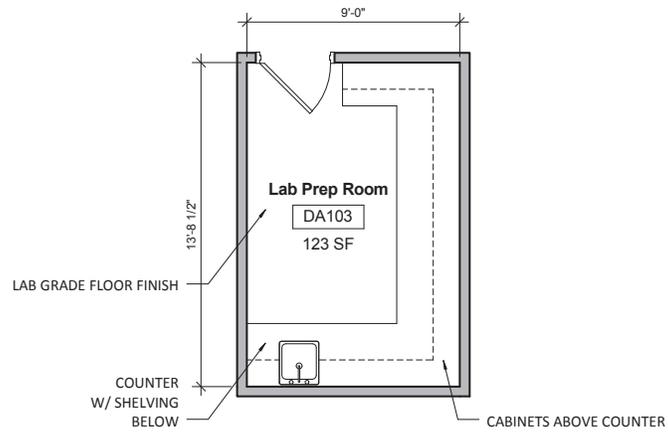
Technical Requirements

MECHANICAL:

Ventilation:	6-10 AC/hr per ANSI Z9.5
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	None required.
Plumbing:	Hand wash sink, water, waste and vent.

ELECTRICAL:

Power:	1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.
LIGHTING:	
Fixture Type:	T-8 or LED Lay-in Volumetric.
Accent Lighting:	LED under upper cabinet.
Foot Candles:	50
Controls:	Vacancy Sensor.



Programming Requirements >> LAB STERILIZATION ROOM

Dental Assisting and Dental Office

Space Requirements

SPACE SUMMARY:

Type of Space:	Lab sterilization room.
Number Required:	1
Total Number:	1
Occupants:	1
Area:	128 SF
Primary Function:	Dental lab for practicing sterilization skills and procedures.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Dental lab.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	Lab-grade floor finish.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	All surfaces must be cleanable.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	None Required.
Frame:	None Required.
Special:	None Required.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:

-Lockable upper and lower cabinets, counter top, whiteboard, tackboard.

MOVEABLE FURNISHINGS:

-Small desk, chairs.

EQUIPMENT:

-Lab prep and sterilization equipment.

Technical Requirements

MECHANICAL:

Ventilation: 6-10 AC/hr per ANSI Z9.5

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: Hand wash sink, water, waste and vent.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

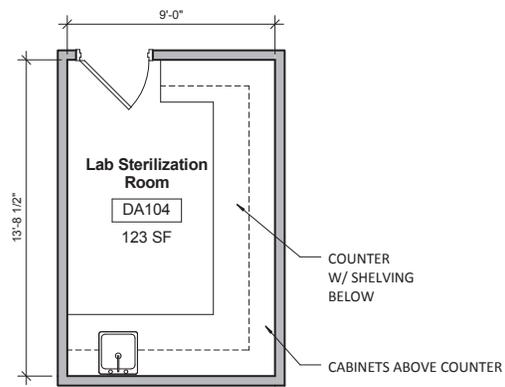
LIGHTING:

Fixture Type: T-8 or LED Lay-in Volumetric.

Accent Lighting: LED under upper cabinet.

Foot Candles: 50

Controls: Vacancy Sensor.



Programming Requirements >> X-RAY ROOM

Dental Assisting and Dental Office

Space Requirements

SPACE SUMMARY:

Type of Space:	Dental X-ray room.
Number Required:	1
Total Number:	1
Occupants:	1
Area:	116 SF
Primary Function:	Facilitates learning of dental x-ray procedures.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	Dental lab.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	Lab-grade floor finish.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	All surfaces must be cleanable.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	None Required.
Frame:	None Required.
Special:	None Required.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lockable upper and lower cabinets, counter top, whiteboard, tackboard.

MOVEABLE FURNISHINGS:

-Small desk, chairs.

EQUIPMENT:

-X-ray machine and equipment.

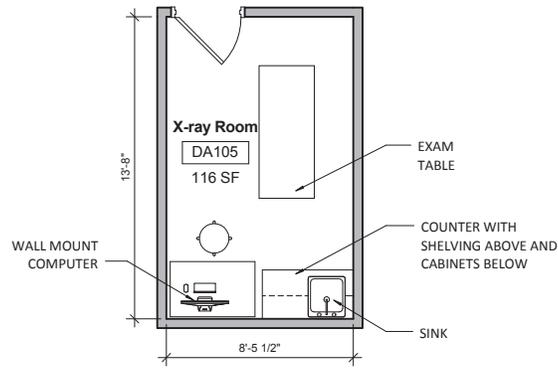
Technical Requirements

MECHANICAL:

Ventilation:	6-10 AC/hr per ANSI Z9.5
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	None required.
Plumbing:	Hand wash sink, water, waste and vent.

ELECTRICAL:

Power:	1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.
LIGHTING:	
Fixture Type:	T-8 or LED Lay-in Volumetric.
Accent Lighting:	LED under upper cabinet.
Foot Candles:	50
Controls:	Vacancy Sensor.



Programming Requirements >> FRONT OFFICE / RECEPTION

Dental Assisting and Dental Office

Space Requirements

SPACE SUMMARY:

Type of Space:	Reception / Waiting
Number Required:	1
Total Number:	1
Occupants:	2
Area:	166 SF
Primary Function:	Reception work area / waiting area.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	Dental waiting area. Dental Lab.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, welcoming, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF):	10'-0" Min.
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PRIVACY/SECURITY:

None required.

DOORS:

Type:	None required.
Frame:	None required.
Special:	None required.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-Couch, comfortable chair, side table, coffee table.

EQUIPMENT:

-Computer; phone.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.

Video: None required.

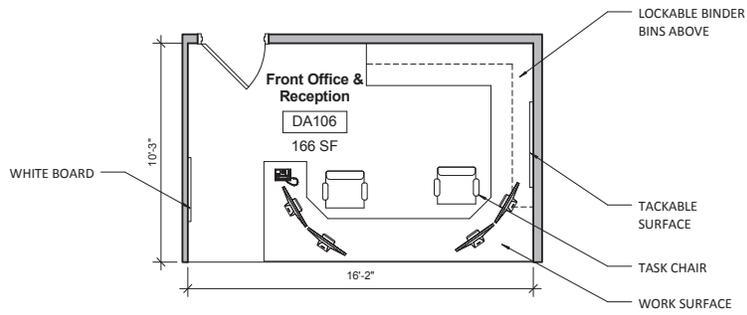
Audio: None required.

LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear
Accent Lighting: None required.

Foot Candles: 20 Ambient / 40 at work surface

Controls: Vacancy Sensor.



Programming Requirements >> WAITING AREA

Dental Assisting and Dental Office

Space Requirements

SPACE SUMMARY:

Type of Space:	Reception / Waiting
Number Required:	1
Total Number:	1
Occupants:	6
Area:	210 SF
Primary Function:	Reception work area / waiting area.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	Dental reception. Dental lab.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, welcoming, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	None required.
Frame:	None required.
Special:	None required.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-Couch, comfortable chair, side table, coffee table.

EQUIPMENT:
-None required.

Technical Requirements

MECHANICAL:
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

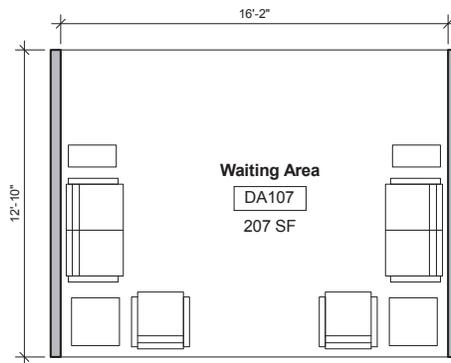
LIGHTING:

Fixture Type: T-8 or LED Lay-in Volumetric or Suspended Linear.

Accent Lighting: None required.

Foot Candles: 20 Ambient.

Controls: Vacancy Sensor.



Programming Requirements >> CHARTING OFFICE

Dental Assisting and Dental Office

Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-2
Area:	111 SF
Primary Function:	Dental charting and instruction.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	Dental lab. Dental reception area.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Painted gypsum board.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF):	9'-0"
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PRIVACY/SECURITY:

None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

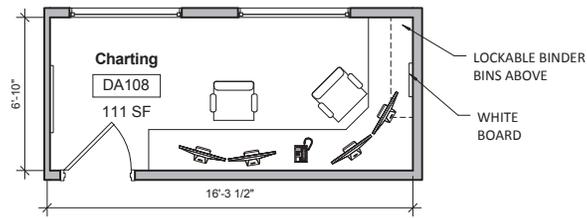
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task.

Controls: Vacancy Sensor, Daylighting w/ continuous lighting.



Programming Requirements >> INSTRUCTOR OFFICE

Dental Assisting and Dental Office

Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-4
Area:	160 SF
Primary Function:	Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	None Required.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

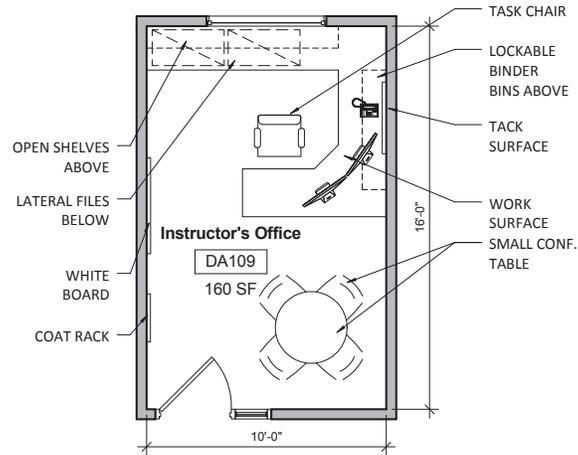
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Programming Requirements >> STORAGE

Dental Assisting and Dental Office

Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	120 SF
Primary Function:	To provide storage for records, documents, and supplies.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Painted gypsum board.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets, open shelves, 24"x24" safe.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
2 devices on opposing walls.

Phone/Data:

Video: None required.

Audio: None required.

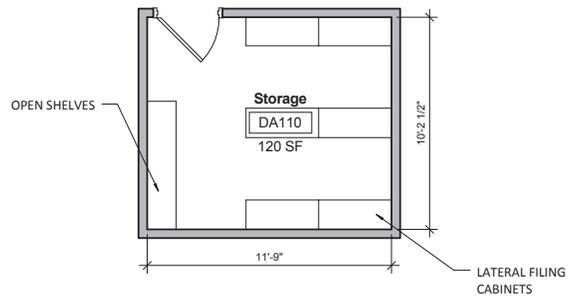
LIGHTING:

Fixture Type: T-8 or LED Lay-in.

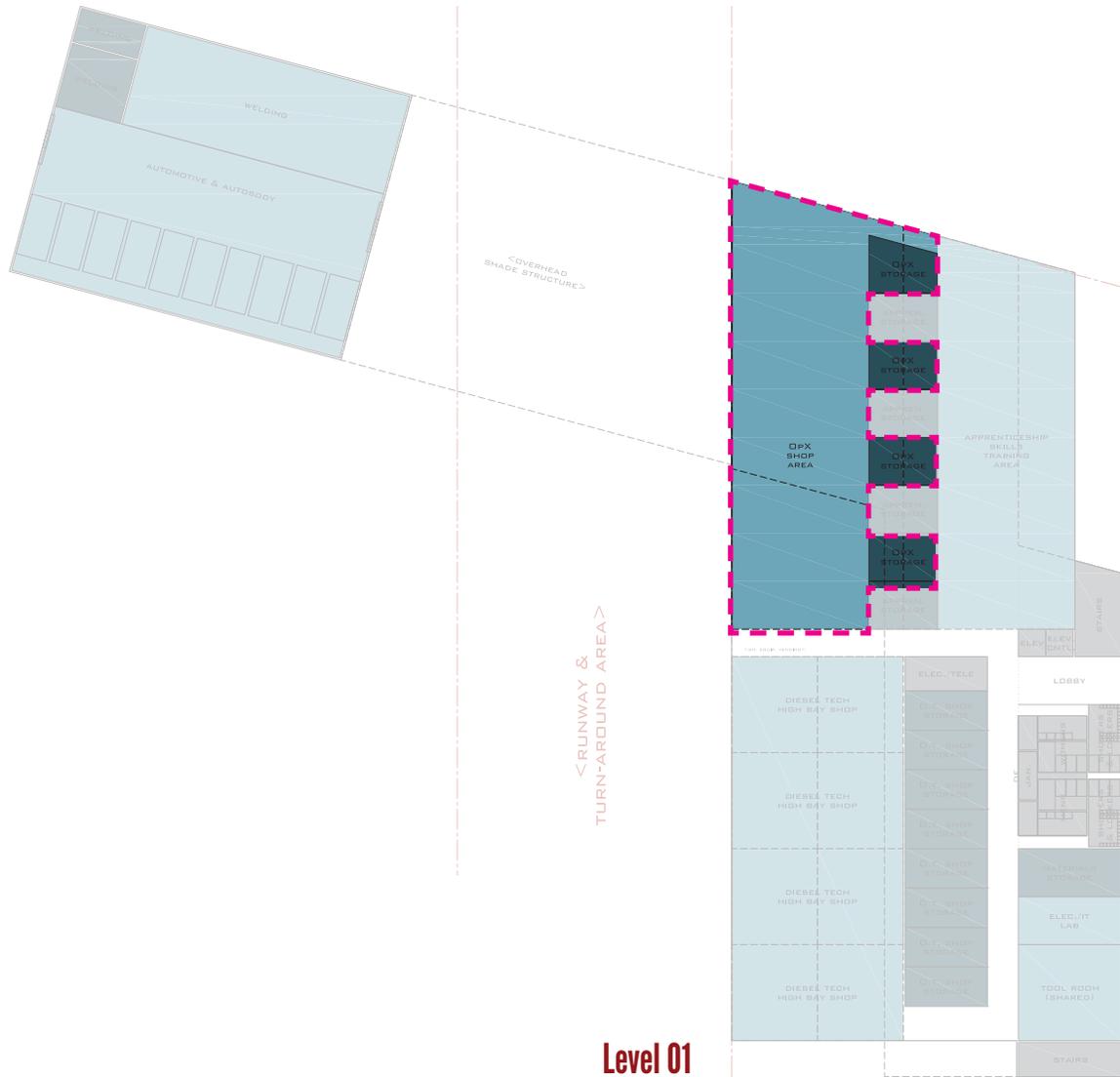
Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy Sensor.



<< Programming Requirements
OPx



Space Requirements

SPACE SUMMARY:

Type of Space:	Classroom
Number Required:	2
Total Number:	2
Occupants:	24
Area:	720 SF
Primary Function:	Teaching / learning wide range of OPx classes.

RELATIONSHIPS:

Location:	Level 2
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Inviting, invigorating, flexible.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF):	10'-0" Min.
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PRIVACY/SECURITY:
Interior windows with blinds.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter top; white board; tack board.

MOVEABLE FURNISHINGS:

-24 student desks/chairs; instructor desk/chair

EQUIPMENT:

-2 computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall and at instructor station. Floor outlets at student desks. Additional capacity for equipment listed.

Data: 2 devices on opposing walls and at instructor station. 1 wireless airport. Additional capacity for equipment listed.

Phone: 2 devices on opposing walls and at instructor station.

Video: A/V system with internet connection.

Audio: Speakers with volume control.

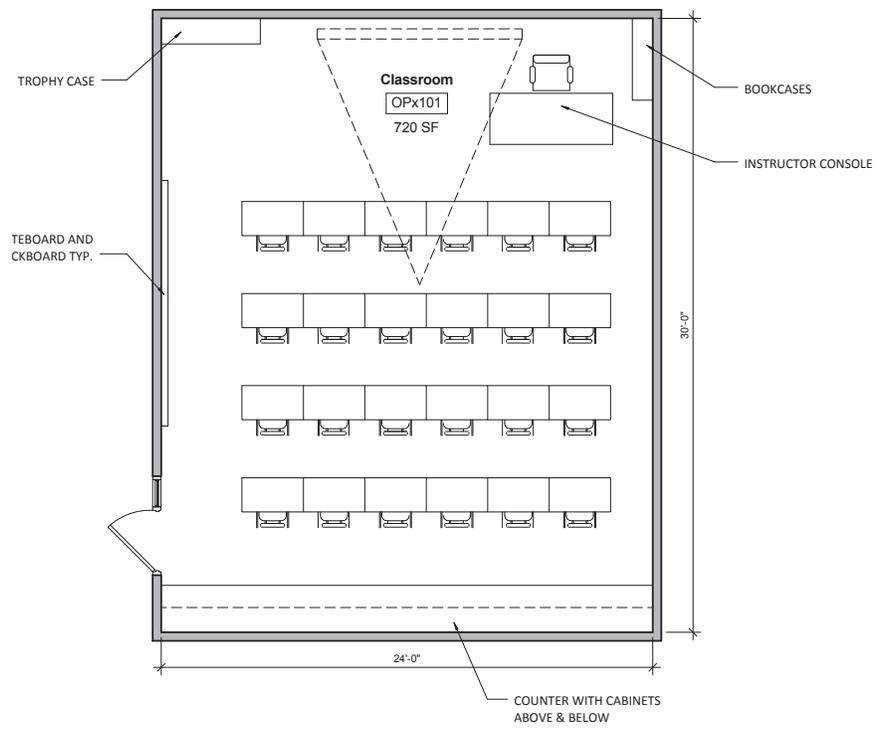
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy Sensor, zoned, dimmable w/ preset scenes, Daylighting.



Space Requirements

SPACE SUMMARY:

Type of Space:	Workshop.
Number Required:	1
Total Number:	1
Occupants:	24
Area:	4357 SF
Primary Function:	To provide work and learning area for OPx program.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Storage.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Functional; clean lines; organized.

FINISHES:

Floor:	Sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Open.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 18'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-Rolling tool cabinets, metal shop tables, etc.

EQUIPMENT:
-Work equipment and tools.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

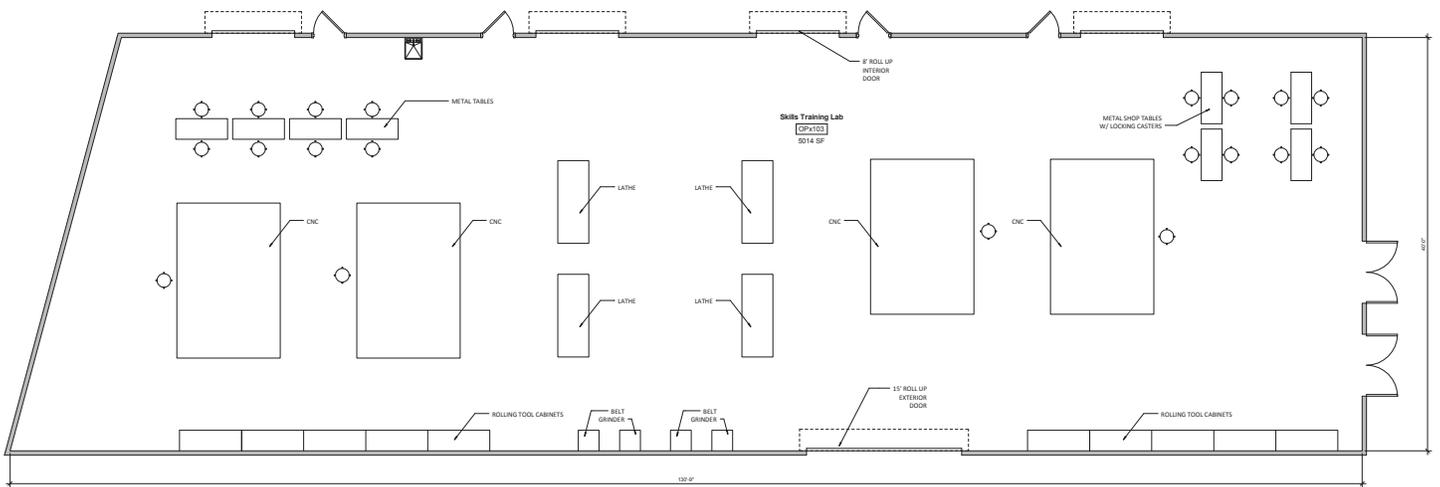
LIGHTING:

Fixture Type: T-8 or LED

Accent Lighting: None required.

Foot Candles: 50

Controls: Occupancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Office.

Number Required: 1

Total Number: 1

Occupants: 1-4

Area: 160 SF

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2

Adjacencies: None Required.

Separation: Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustic ceiling tile.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

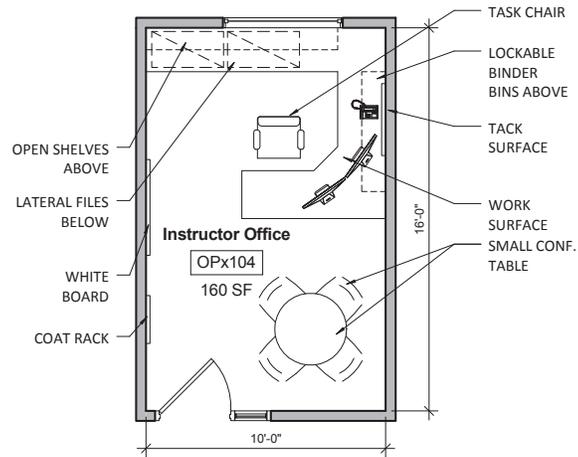
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space: Open workstation

Number Required: 4

Total Number: 4

Occupants: 1

Area: 68 SF ea.

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2

Adjacencies: None required.

Separation: Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:

Clean, organized, welcoming, and comfortable.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Suspended 2'x4' ACT

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type: None required.

Frame: None required.

Special: None required.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Desk; Shelves and locking storage; Tackboard.

MOVEABLE FURNISHINGS:

-Staff rolling chair.

EQUIPMENT:

-Computer; Monitor; Phone; Trash can.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

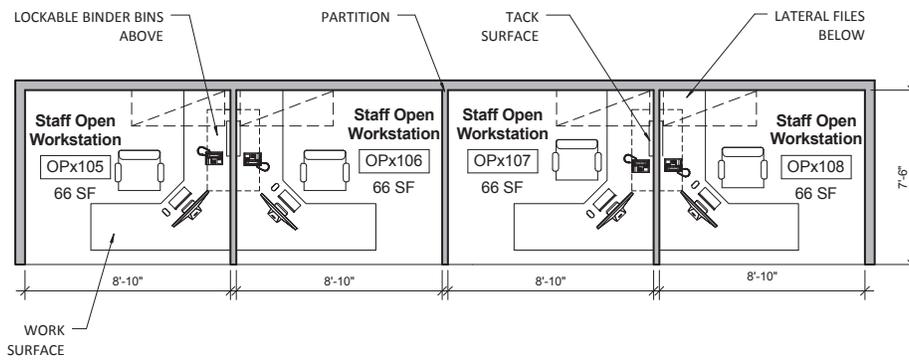
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task.

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-3
Area:	120 SF
Primary Function:	Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile None required.
Specialty Finishes:	Secure and sound proof ceiling, insulated for sound control.
Sound:	

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: Speaker with volume control.

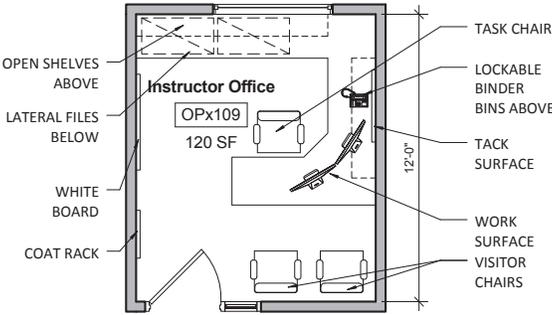
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	280 SF
Primary Function:	To provide storage for supplies, equipment, and tools.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	OPx workshop.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Suspended 2'x4' ACT.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish; roll up overhead door.
Frame:	Painted aluminum
Special:	None required.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets, open shelves, 24"x24" safe.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

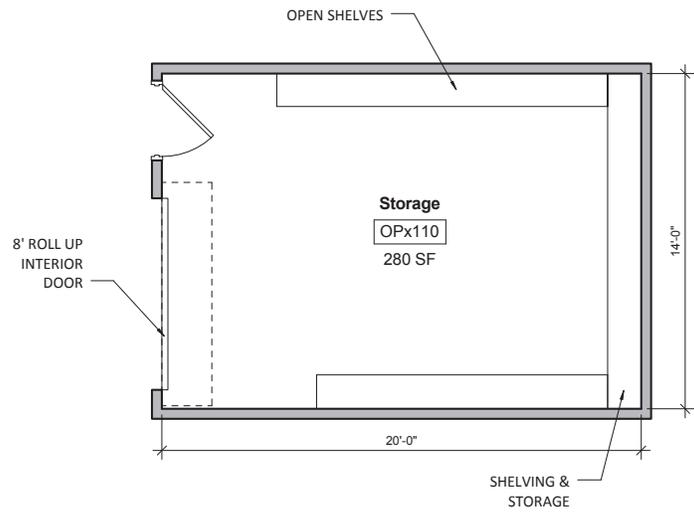
LIGHTING:

Fixture Type: T-8 or LED Lay-in.

Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	120 SF
Primary Function:	To provide storage for materials for OPx program.

RELATIONSHIPS:

Location:	Level 1
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Suspended 2'x4' ACT.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:
-Open shelves, bins, etc.

MOVEABLE FURNISHINGS:
-None required.

EQUIPMENT:
-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

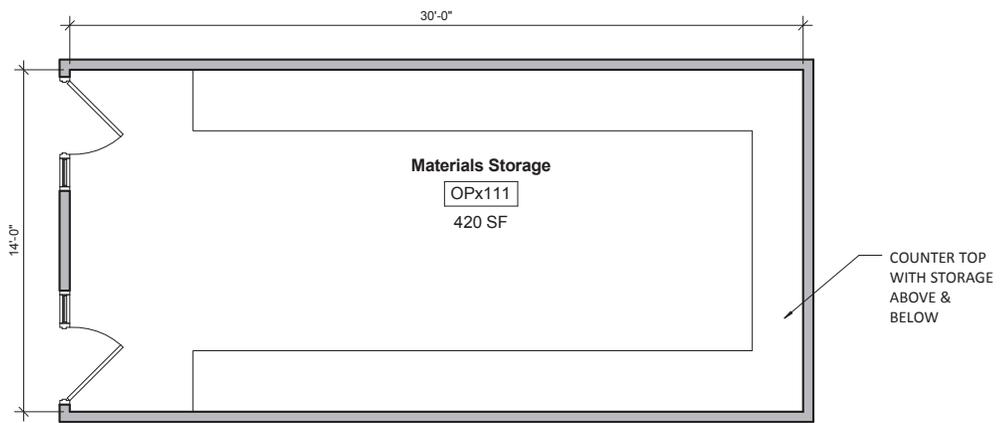
LIGHTING:

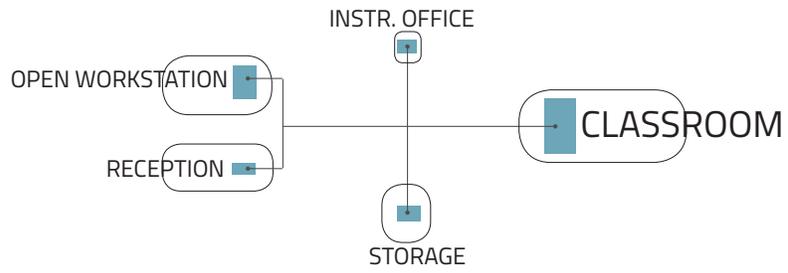
Fixture Type: T-8 or LED Lay-in.

Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy Sensor.





Space Requirements

SPACE SUMMARY:

Type of Space:	Classroom
Number Required:	1
Total Number:	1
Occupants:	24
Area:	868 SF
Primary Function:	Teaching / learning wide range of Catapult classes.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	Catapult offices and reception area.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Inviting, invigorating, flexible.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Suspended 2'x4' ACT
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
Interior windows with blinds.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight. Sound isolation.
Special:	Retractable room dividing partitions.

Architectural Requirements

WINDOWS:

Type:	Interior.
Glazing:	Clear glass.
Natural Light:	Desired.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter top; white board; tack board.

MOVEABLE FURNISHINGS:

-24 student desks/chairs; 1 instructor desk/chair

EQUIPMENT:

-2 computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall and at instructor station. Floor outlets at student desks. Additional capacity for equipment listed.

Data: 2 devices on opposing walls and at instructor station. 1 wireless airport. Additional capacity for equipment listed.

Phone: 2 devices on opposing walls and at instructor station.

Video: A/V system with internet connection.

Audio: Speakers with volume control.

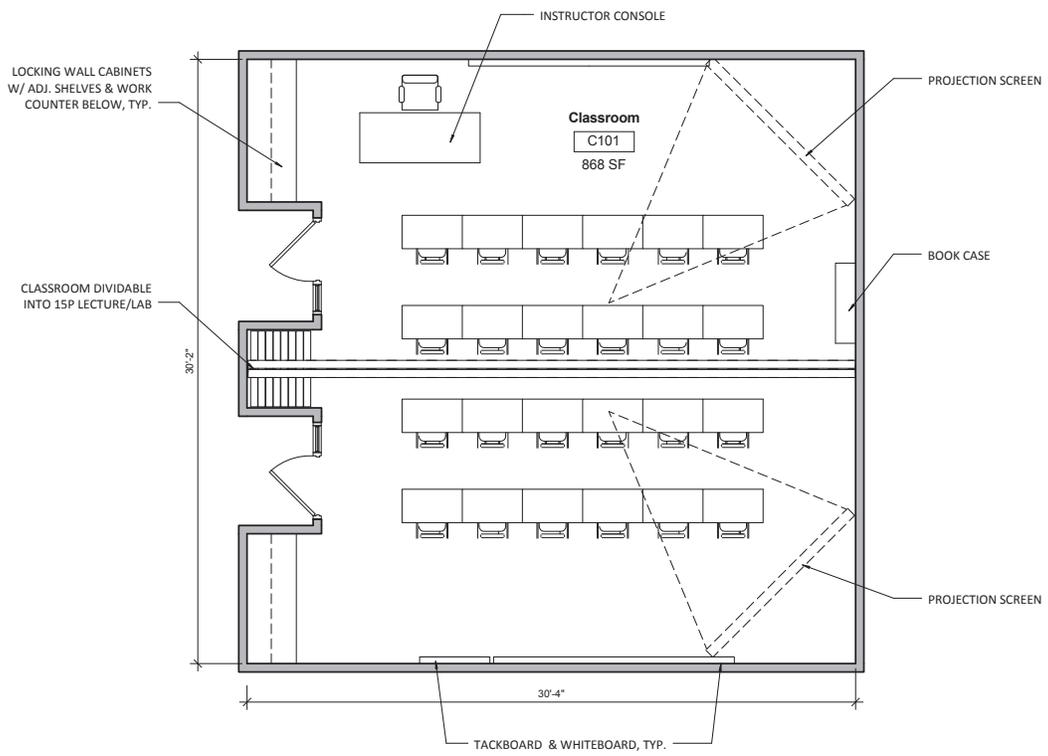
LIGHTING:

Fixture Type: T8 or LED Volumetric Lay-in

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy sensor. zoned, dimmable w/preset scenes



Space Requirements

SPACE SUMMARY:

Type of Space:	Reception / Waiting
Number Required:	1
Total Number:	1
Occupants:	8
Area:	280 SF
Primary Function:	Reception work area / waiting area.

RELATIONSHIPS:

Location:	Level 2
Adjacencies:	Catapult offices and classroom.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, welcoming, and natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF):	10'-0" Min.
----------------------------------	-------------

PRIVACY/SECURITY:

None required.

DOORS:

Type:	None required.
Frame:	None required.
Special:	None required.

Architectural Requirements

WINDOWS:

Type:	None required.
Glazing:	None required.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-Couch, comfortable chair, side table, coffee table.

EQUIPMENT:

-Computer;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

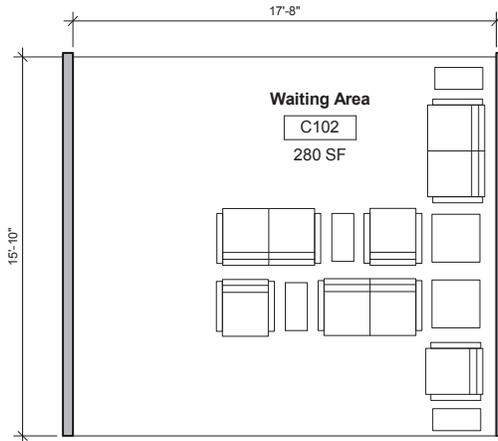
LIGHTING:

Fixture Type: T8 or LED Volumetric Lay-in or Suspended Linear

Accent Lighting: 2 walls for pictures and certificates.

Foot Candles: 20 Ambient / 40 at work surface

Controls: Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Open workstation

Number Required: 2

Total Number: 2

Occupants: 1

Area: 68 SF

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2

Adjacencies: Catapult reception and classroom.

Separation: Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:

Clean, organized, welcoming, and comfortable.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

None required.

DOORS:

Type: None required.

Frame: None required.

Special: None required.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Desk; Shelves and locking storage; Tackboard.

MOVEABLE FURNISHINGS:

-Staff rolling chair.

EQUIPMENT:

-Computer; Monitor; Phone; Trash can.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

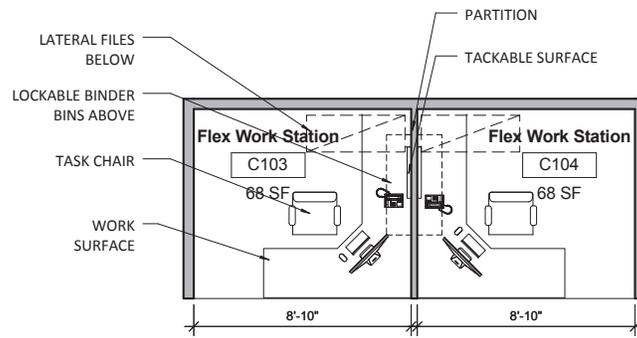
LIGHTING:

Fixture Type: T8 or LED Volumetric Lay-in or Suspended Linear

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor



Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-4
Area:	160 SF
Primary Function:	Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

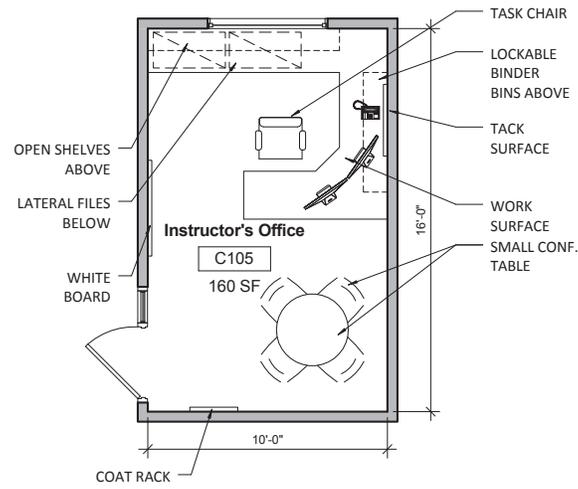
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/continuous dimming



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	121 SF
Primary Function:	To provide storage for records, documents, and supplies.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Suspended 2'x4' ACT.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets, open shelves, 24"x24" safe.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

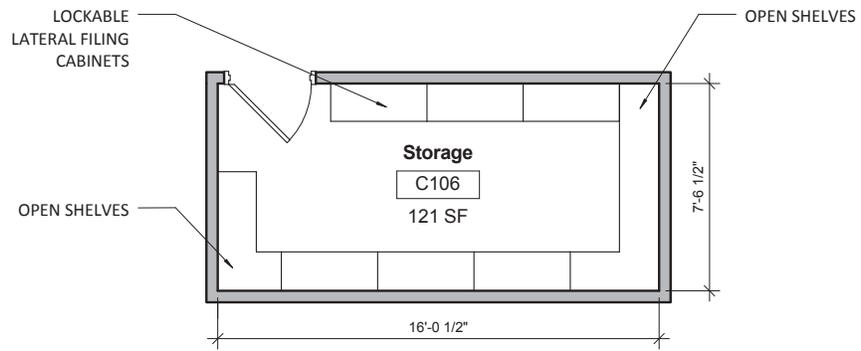
LIGHTING:

Fixture Type: T8 or LED lay-in.

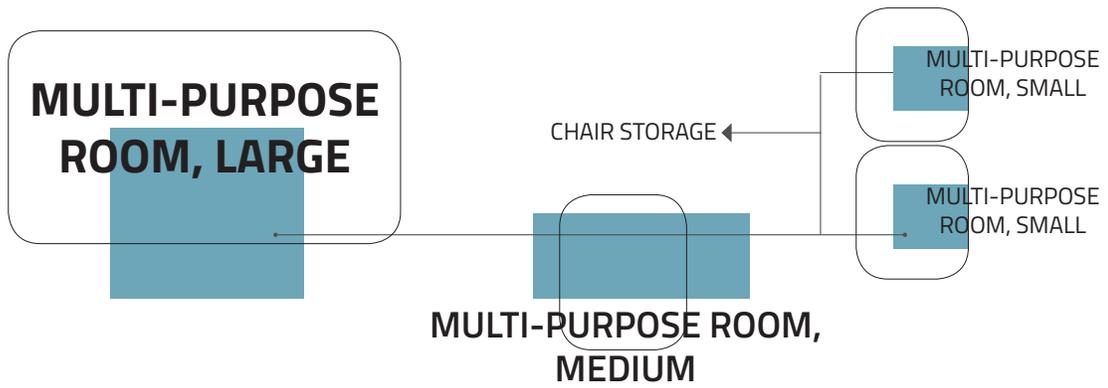
Accent Lighting: None required.

Foot Candles: 20

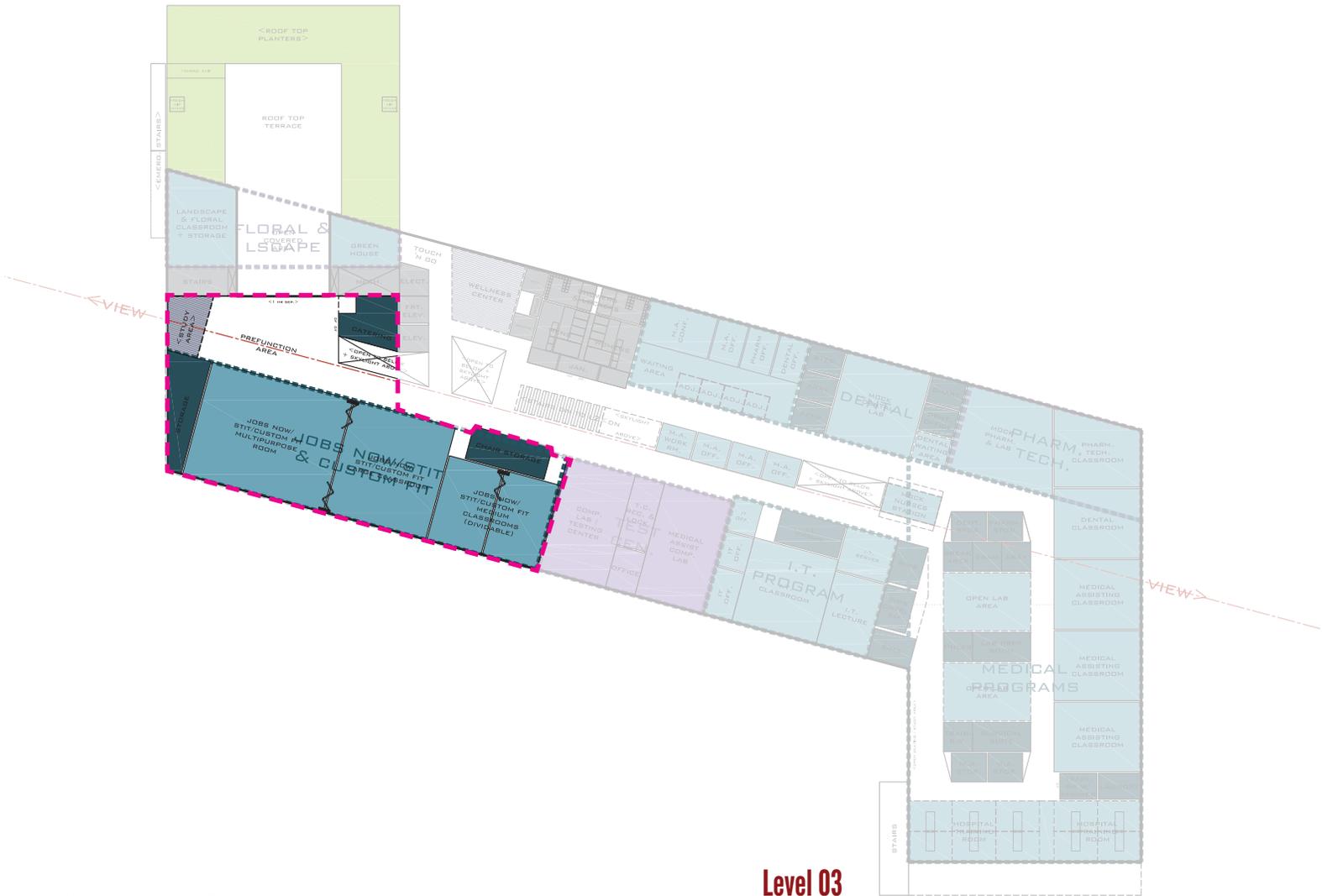
Controls: Vacancy sensor.



Custom Fit / Jobs Now / Stit



<< Programming Requirements
Custom Fit / Jobs Now / STIT



Level 03

CUSTOM FIT / JOBS NOW / STIT

Custom Fit and Jobs Now/STIT are separate programs that have very similar functions and spatial needs ultimately served by a suite of multipurpose rooms of varying/flexible sizes. Thus, as illustrated in the Test-Fit floor plan, and realized in the Program of Spaces, their requirements have been combined – maximizing efficiency, and relying on internal scheduling to alleviate related conflicts. Significant storage space for chairs and tables, as well as program-related materials must be located with reasonable proximity to the rooms. The multipurpose rooms serve dual purposes, doubling as a major component of the Event Center concept. Thus, immediate adjacency to a catering preparation space and reasonable adjacency to the Rooftop Terrace is essential. Due the nature of typical users experiencing the building for the first-time, ease of access and way-finding is important – but clear signage was determined to be sufficient if designed properly. Ample ante-room space at the entries is required for the potentially large groups that will be utilizing the multipurpose rooms. Natural daylight and views should be maximized to the extent possible, with a high level of controllability for multimedia presentations. Acoustic measures must be taken to mitigate sound transfer between rooms; in particular operable partitions will need to be specified with a high STC rating while aligning with the available budget.

Space Requirements

SPACE SUMMARY:

Type of Space:	Classroom
Number Required:	1
Total Number:	1
Occupants:	48
Area:	1435 SF
Primary Function:	Teaching / learning wide range of Custom Fit, Jobs Now, and STIT classes.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Custom Fit, Jobs Now, and STIT classes.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
 Inviting, invigorating, flexible.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
 Interior windows with blinds.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight. Sound isolation.
Special:	Retractable room dividing partitions.

Architectural Requirements

WINDOWS:

Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter top; white board; tack board.

MOVEABLE FURNISHINGS:

-48 student desks/chairs; 2 instructor desk/chair

EQUIPMENT:

-2 computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall and at instructor station. Floor outlets at student desks. Additional capacity for equipment listed.

Data: 2 devices on opposing walls and at instructor station. 1 wireless airport. Additional capacity for equipment listed.

Phone: 2 devices on opposing walls and at instructor station.

Video: A/V system with internet connection.

Audio: Speakers with volume control.

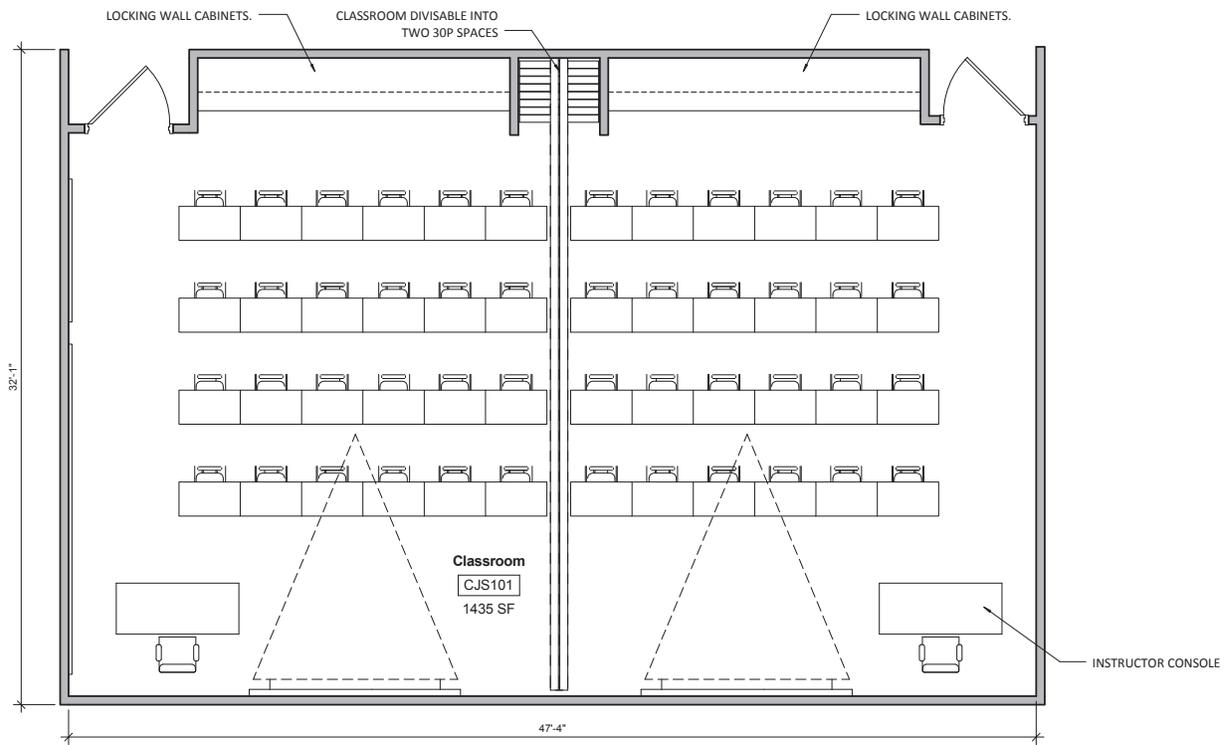
LIGHTING:

Fixture Type: T8 or LED Volumetric Lay-in

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy sensor. zoned, dimmable w/preset scenes, room combine controls, daylighting



Space Requirements

SPACE SUMMARY:

Type of Space: Multi-purpose

Number Required: 1

Total Number: 1

Occupants: 100

Area: 2001 SF

Primary Function: Teaching / learning wide range of Custom Fit, Jobs Now, and STIT classes. Events space.

RELATIONSHIPS:

Location: Level 2

Adjacencies: Pre-function area. Catering. .

Separation: None required.

Architectural Requirements

DESIGN/AESTHETIC:
Inviting, invigorating, flexible.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
Interior windows with blinds.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.
Sound isolation.

Special: Retractable room dividing partitions.

Architectural Requirements

WINDOWS:

Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter top; white board; tack board.

MOVEABLE FURNISHINGS:

-24 student desks/chairs; 1 instructor desk/chair

EQUIPMENT:

-2 computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall and at instructor station. Floor outlets at student desks. Additional capacity for equipment listed.

Data: 2 devices on opposing walls and at instructor station. 1 wireless airport. Additional capacity for equipment listed.

Phone: 2 devices on opposing walls and at instructor station.

Video: A/V system with internet connection.

Audio: Speakers with volume control.

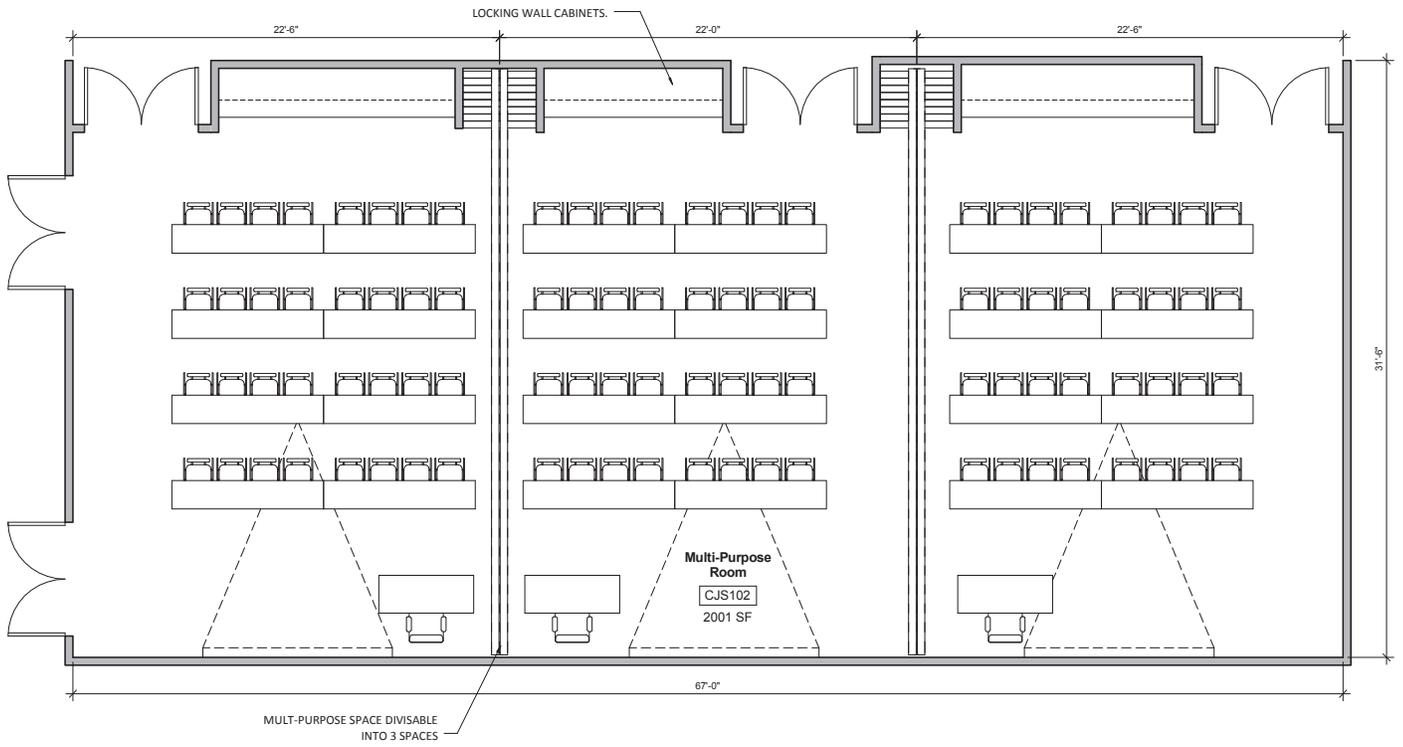
LIGHTING:

Fixture Type: T8 or LED Volumetric Lay-in

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy sensor. zoned, dimmable w/preset scenes, room combine controls, daylighting



Space Requirements

SPACE SUMMARY:

Type of Space:	Classroom
Number Required:	2
Total Number:	2
Occupants:	18
Area:	544 SF
Primary Function:	Teaching / learning wide range of Custom Fit, Jobs Now, and STIT classes.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Custom Fit, Jobs Now, and STIT classes.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Inviting, invigorating, flexible.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
Interior windows with blinds.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter top; white board; tack board.

MOVEABLE FURNISHINGS:

-48 student desks/chairs; 2 instructor desk/chair

EQUIPMENT:

-2 computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall and at instructor station. Floor outlets at student desks. Additional capacity for equipment listed.

Data: 2 devices on opposing walls and at instructor station. 1 wireless airport. Additional capacity for equipment listed.

Phone: 2 devices on opposing walls and at instructor station.

Video: A/V system with internet connection.

Audio: Speakers with volume control.

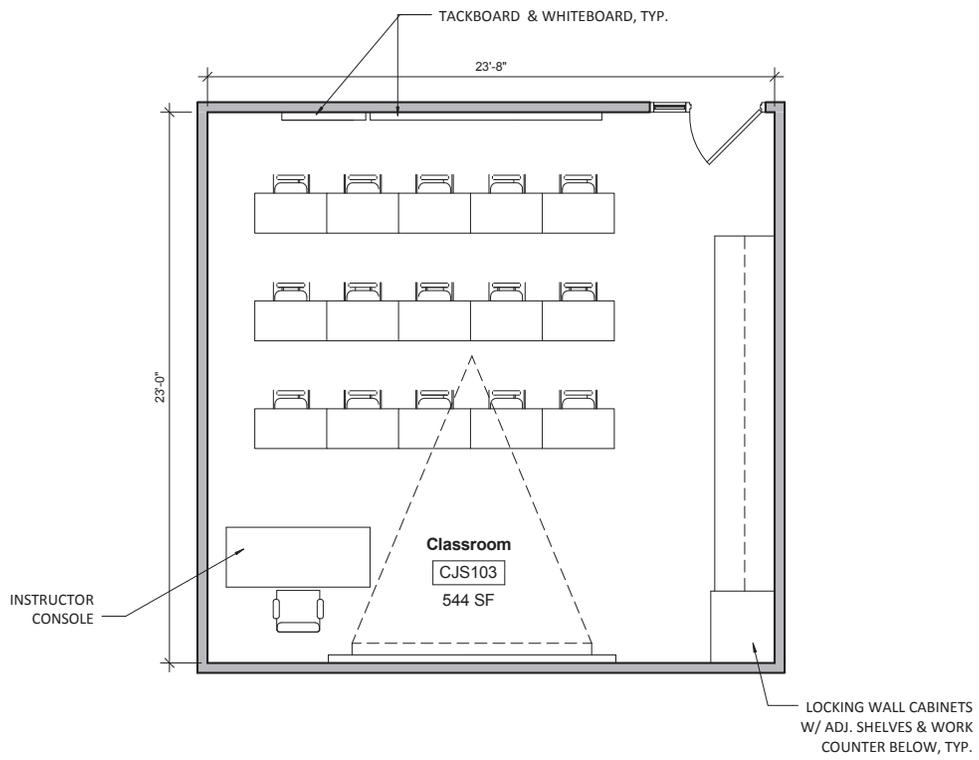
LIGHTING:

Fixture Type: T8 or LED Volumetric Lay-in

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy sensor. zoned, dimmable w/preset scenes, room combine controls, daylighting



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	204 SF
Primary Function:	To provide storage for chairs and tables used in multi-purpose room.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Multi-purpose room.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-None required.

EQUIPMENT:
-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

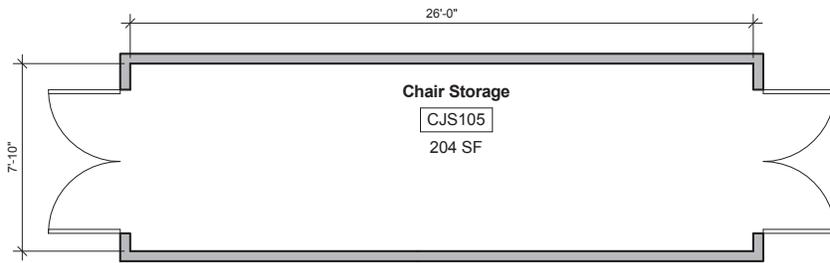
LIGHTING:

Fixture Type: T8 or LED lay-in.

Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	600 SF
Primary Function:	To provide storage for event supplies.

RELATIONSHIPS:

Location:	Level 3
Adjacencies:	Direct access to multi-purpose room.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:
-Open shelves, filing cabinets, etc.

MOVEABLE FURNISHINGS:
-None required.

EQUIPMENT:
-None required.

Technical Requirements

MECHANICAL:
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

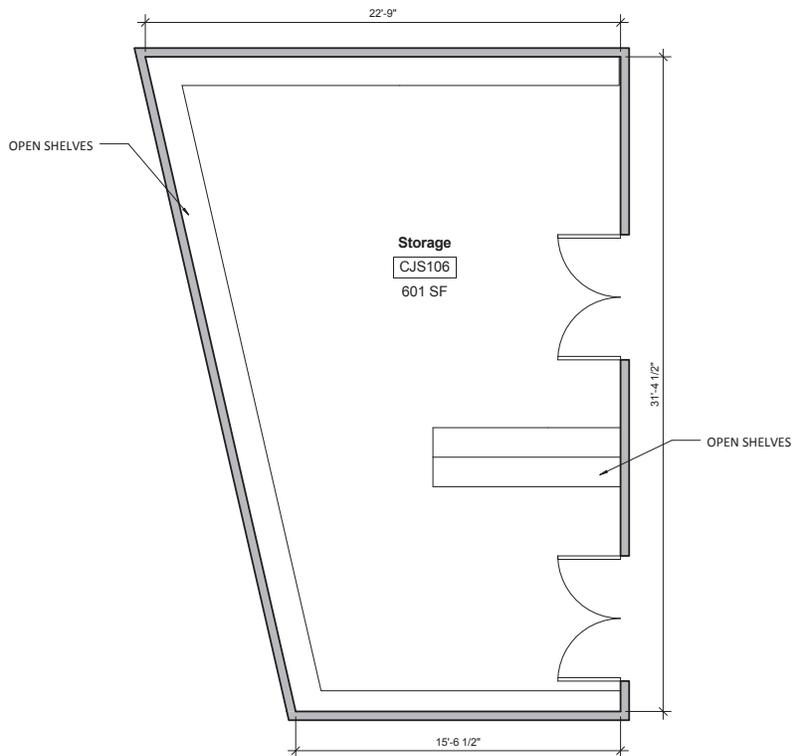
LIGHTING:

Fixture Type: T8 or LED lay-in.

Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Catering Prep Room
Number Required:	1
Total Number:	1
Occupants:	1
Area:	153 SF
Primary Function:	Storage, staging, and warming for events catering.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Multi-purpose room.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
 Visually accessible, comfortable, natural lighting, functional, bright.

FINISHES:	
Floor:	Ceramic tile.
Walls:	Painted gypsum board with backsplash at sink.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	-
Sound:	Insulated for sound control.

CEILING HEIGHT:
Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
 None required.

DOORS:	
Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	Desirable.

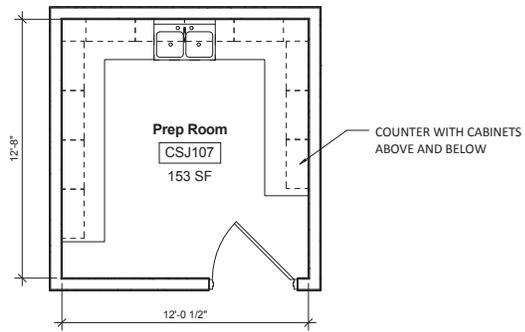
CASEWORK/FIXED EQUIPMENT:
 -Upper and lower cabinets, counter top.

MOVEABLE FURNISHINGS:
 -None required.

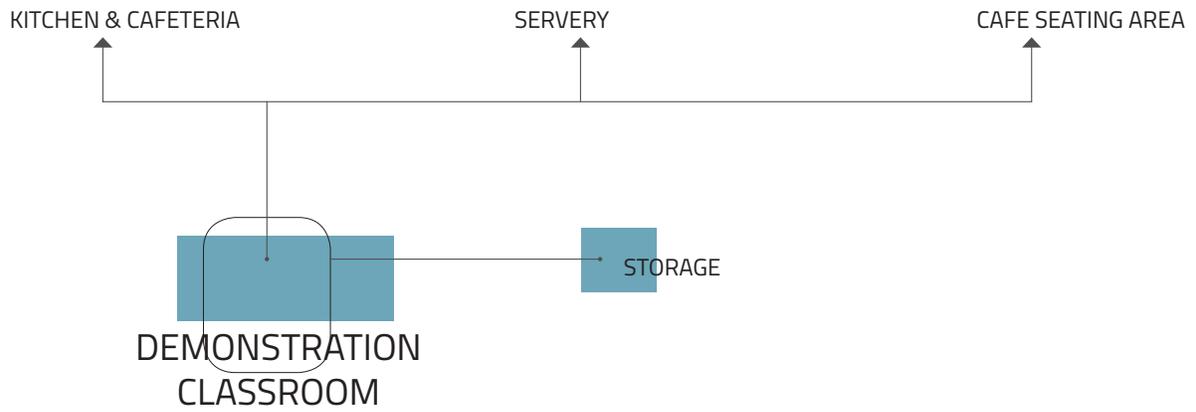
EQUIPMENT:
 -Microwave, large refrigerators, fire extinguisher.

Technical Requirements

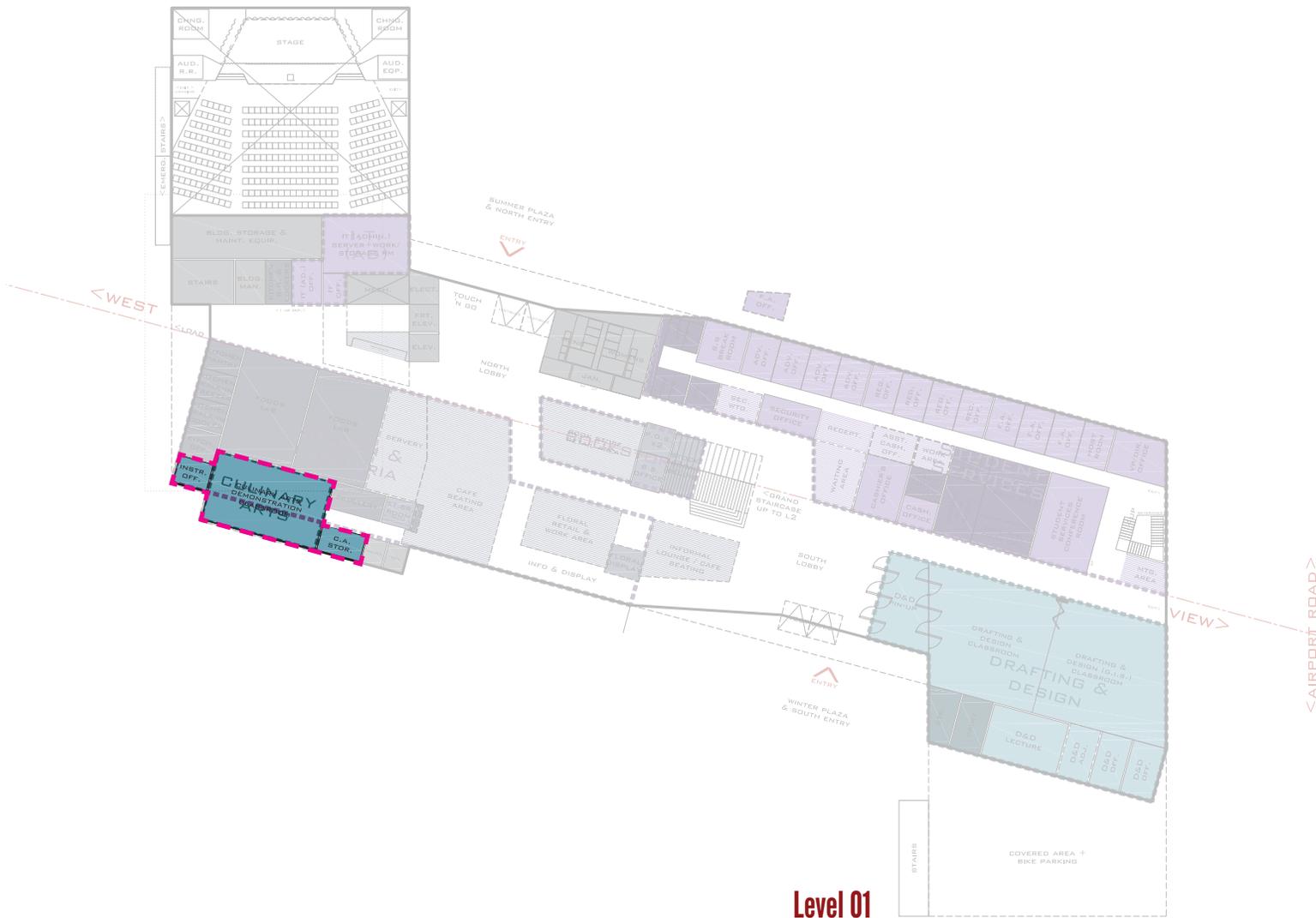
MECHANICAL:	
Ventilation:	20 CFM/person.
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	None required.
Plumbing:	Double sink; Water, waste and vent.
ELECTRICAL:	
Power:	2 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.
LIGHTING:	
Fixture Type:	T8 or LED lay-in.
Accent Lighting:	None required.
Foot Candles:	40
Controls:	Occupancy sensor.



Culinary Arts



<< Programming Requirements Culinary Arts



CULINARY ARTS

Culinary Arts was highlighted as a program to be featured. The Demonstration Lab/classroom must be located directly adjacent to the kitchen/food labs/support spaces and the cafeteria to maximize shared resources. Frequent, but small deliveries make level 1 the ideal location for this program as illustrated in the Test-Fit floor plan. Significant mechanical/plumbing/electrical requirements related to the equipment in the kitchen/food labs and demonstration lab will be a major design consideration for this program. Internal relationships of the kitchen/food labs and related support spaces will dictate the ideal relationships required for this program. Exterior access to/from the cafeteria to an adjacent plaza should be leveraged to the extent possible to provide multiple modes of seating for both large and small groups. This is a new program and requirements should be carefully vetted at the beginning of the subsequent design phase for all proper accommodations. Natural daylight and views should be maximized to the extent possible.

Space Requirements

SPACE SUMMARY:

Type of Space:	Laboratory
Number Required:	1
Total Number:	1
Occupants:	24
Area:	967 SF
Primary Function:	Provide a specialized instructional environment for Culinary Arts classes.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Kitchen.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Durable finishes, inviting feel.

FINISHES:

Floor:	Porcelain Tile or Sealed Concrete
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Full sound construction.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:

High visibility, no additional security required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:

Type:	Exterior.
Glazing:	Low-E.
Natural Light:	Desirable.

CASEWORK/FIXED EQUIPMENT:

-Counter area with lockable base cabinets.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-See the Food Services Design Criteria in section 04 (building requirements) of this document for the extensive food services equipment list.

Technical Requirements

MECHANICAL:

Ventilation: 6-10 AC/hr per ANSI Z9.5

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall and at instructor station.

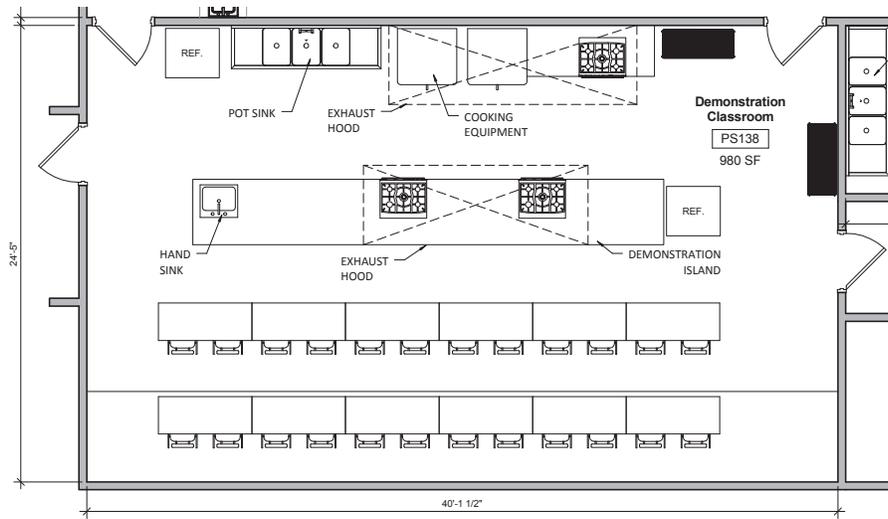
Data: 2 devices on opposing walls and at instructor station.

Phone: 2 devices on opposing walls and at instructor station.

Video: A/V system with internet connection.

Audio: Speakers with volume control.

- LIGHTING:**
- Fixture Type:** LED Volumetric Lay-in.
- Accent Lighting:** Task lighting at work surface.
- Foot Candles:** 40-45
- VCP:** 70
- Controls:** Vacancy Sensor, zoned, daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-3
Area:	120 SF
Primary Function:	Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	None Required.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

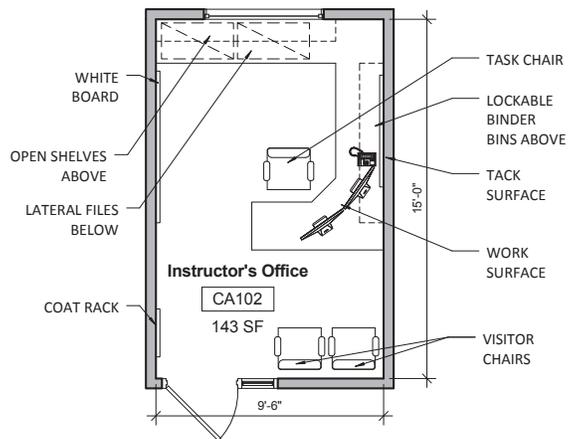
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	120 SF
Primary Function:	To provide storage for records, documents, and supplies.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Culinary demonstration room.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
 Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Painted gypsum board.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
 None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets, open shelves, 24"x24" safe.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

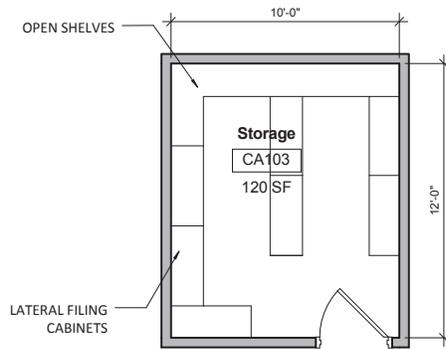
LIGHTING:

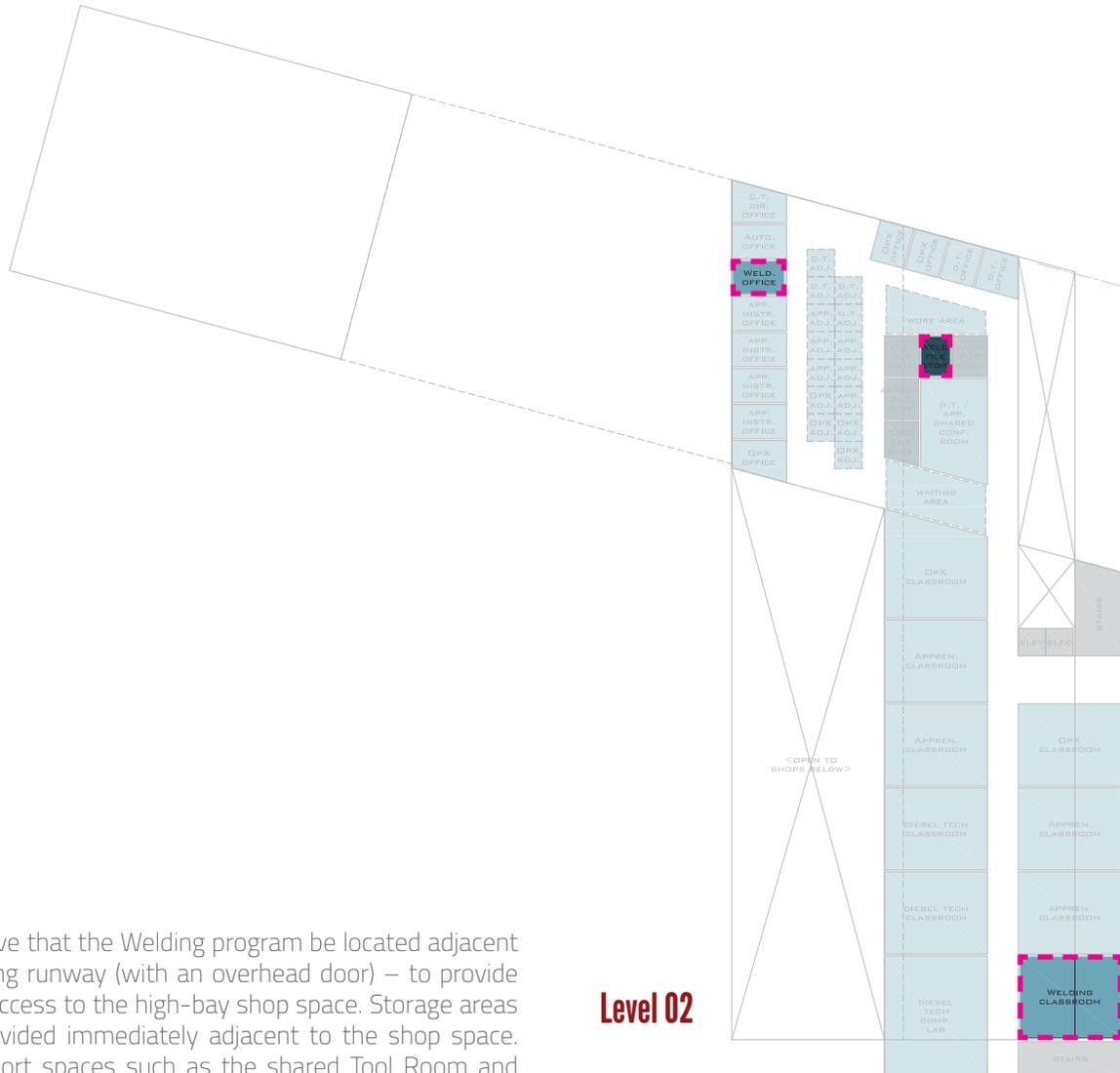
Fixture Type: T-8 or LED Lay-in.

Accent Lighting: None required.

Foot Candles: 50-20

Controls: Vacancy sensor.



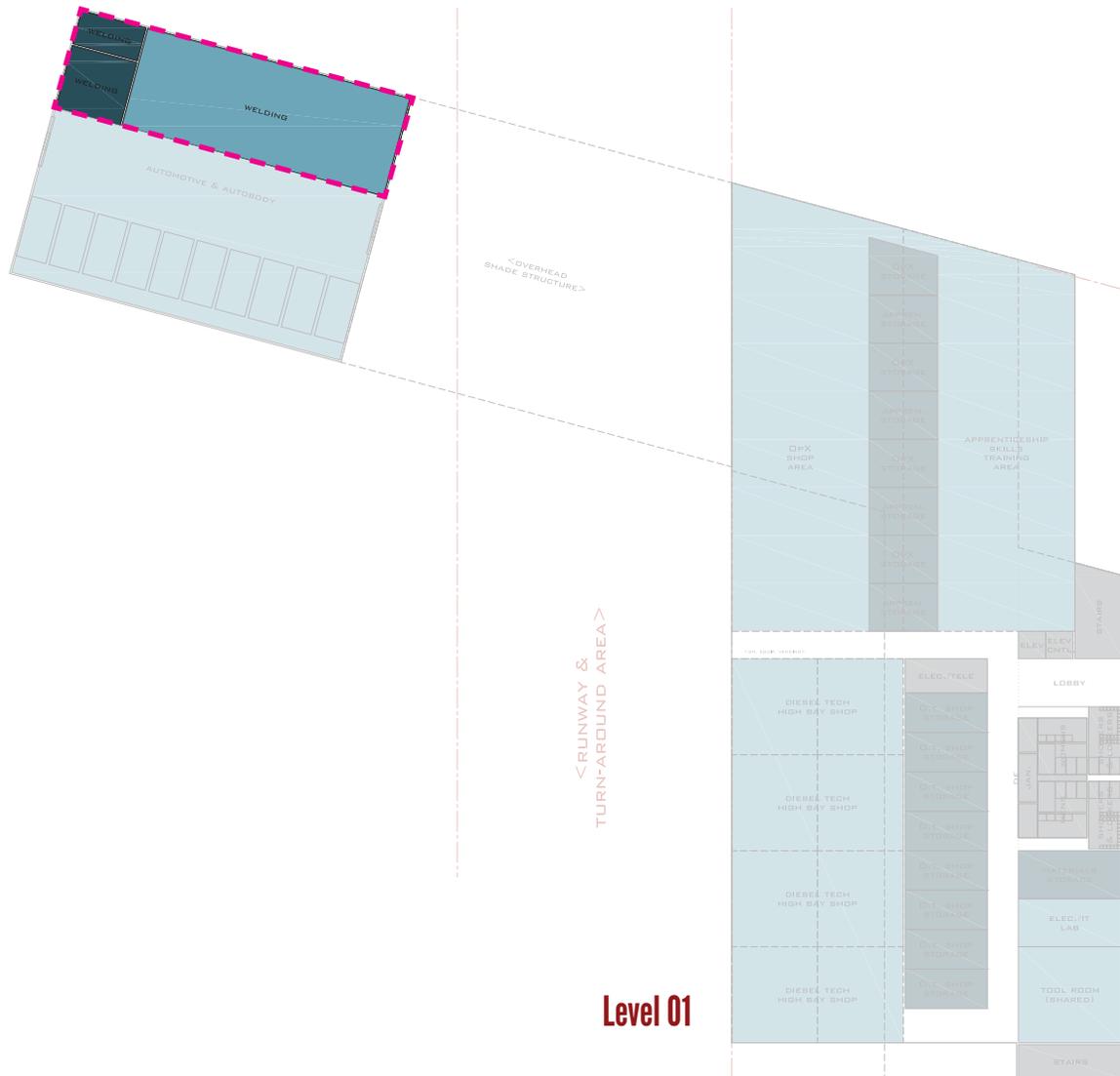


Level 02

WELDING

It is imperative that the Welding program be located adjacent to the existing runway (with an overhead door) – to provide convenient access to the high-bay shop space. Storage areas must be provided immediately adjacent to the shop space. Interior support spaces such as the shared Tool Room and Materials Storage should be located with a degree of convenient proximity, but immediate adjacency is not required. Classrooms and offices may be clustered in zones and shared with the other Industrial Trades programs to maximize efficiencies and shared resources. Welding is a newly expanded program and requirements should be carefully vetted at the beginning of the subsequent design phase for all proper accommodations. Natural daylight and views should be maximized to the extent possible.

<< Programming Requirements
Welding



Space Requirements

SPACE SUMMARY:

Type of Space:	Classroom
Number Required:	1
Total Number:	1
Occupants:	24
Area:	720 SF
Primary Function:	Teaching / learning wide range of Diesel technology classes.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Inviting, invigorating, flexible.

FINISHES:

Floor:	Carpet or sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
Interior windows with blinds.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter top; white board; tack board.

MOVEABLE FURNISHINGS:

-24 student desks/chairs; instructor desk/chair

EQUIPMENT:

-2 computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall and at instructor station. Floor outlets at student desks. Additional capacity for equipment listed.

Data: 2 devices on opposing walls and at instructor station. 1 wireless airport. Additional capacity for equipment listed.

Phone: 2 devices on opposing walls and at instructor station.

Video: A/V system with internet connection.

Audio: Speakers with volume control.

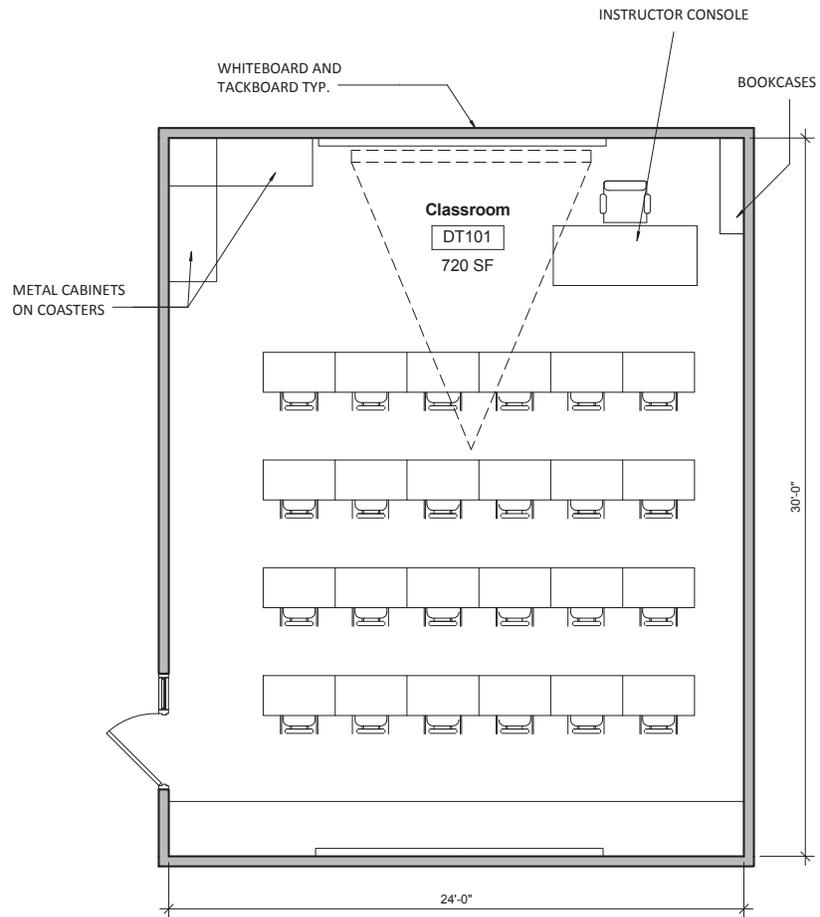
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy Sensor, zoned, dimmable w/ preset scenes, Daylighting.



Space Requirements

SPACE SUMMARY:

Type of Space:	Workshop.
Number Required:	1
Total Number:	1
Occupants:	24
Area:	2400 SF
Primary Function:	To provide work and learning area for welding practices.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Storage.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Functional; clean lines; organized.

FINISHES:

Floor:	Sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Open.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 18'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-Rolling tool cabinets, metal shop tables, etc.

EQUIPMENT:

-Welding equipment.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

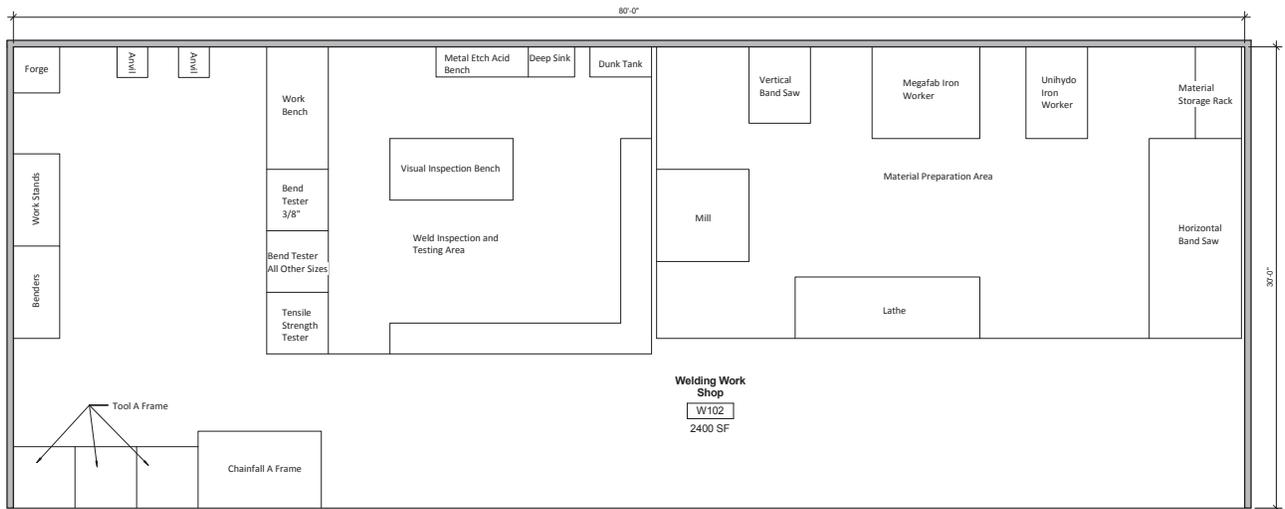
LIGHTING:

Fixture Type: T-8 or LED

Accent Lighting: None required.

Foot Candles: 50

Controls: Occupancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Office.

Number Required: 1

Total Number: 1

Occupants: 1-4

Area: 160 SF

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 2

Adjacencies: None Required.

Separation: Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustic ceiling tile.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

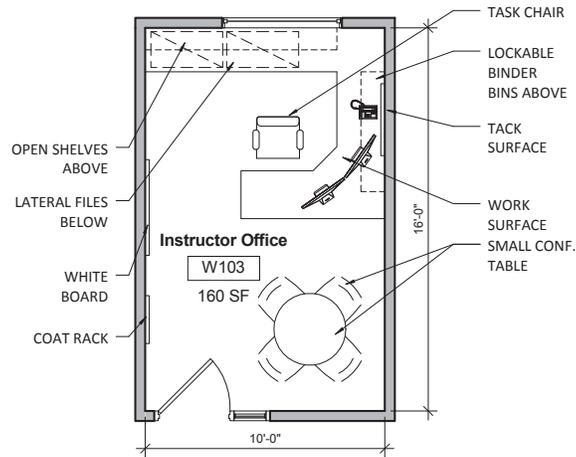
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	120 SF
Primary Function:	To provide storage for records, documents, and supplies.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets, open shelves, 24"x24" safe.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

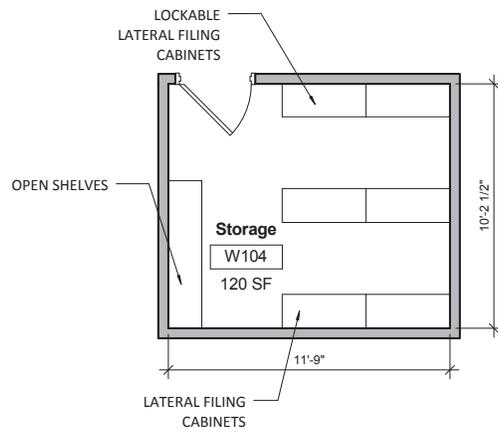
LIGHTING:

Fixture Type: T-8 or LED Lay-in.

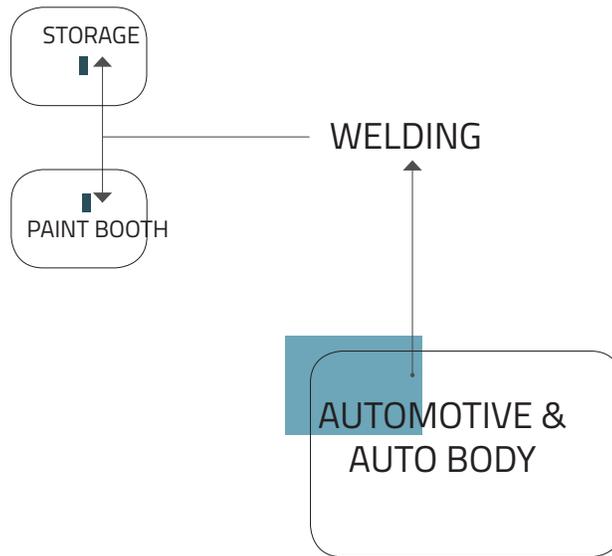
Accent Lighting: None required.

Foot Candles: 20

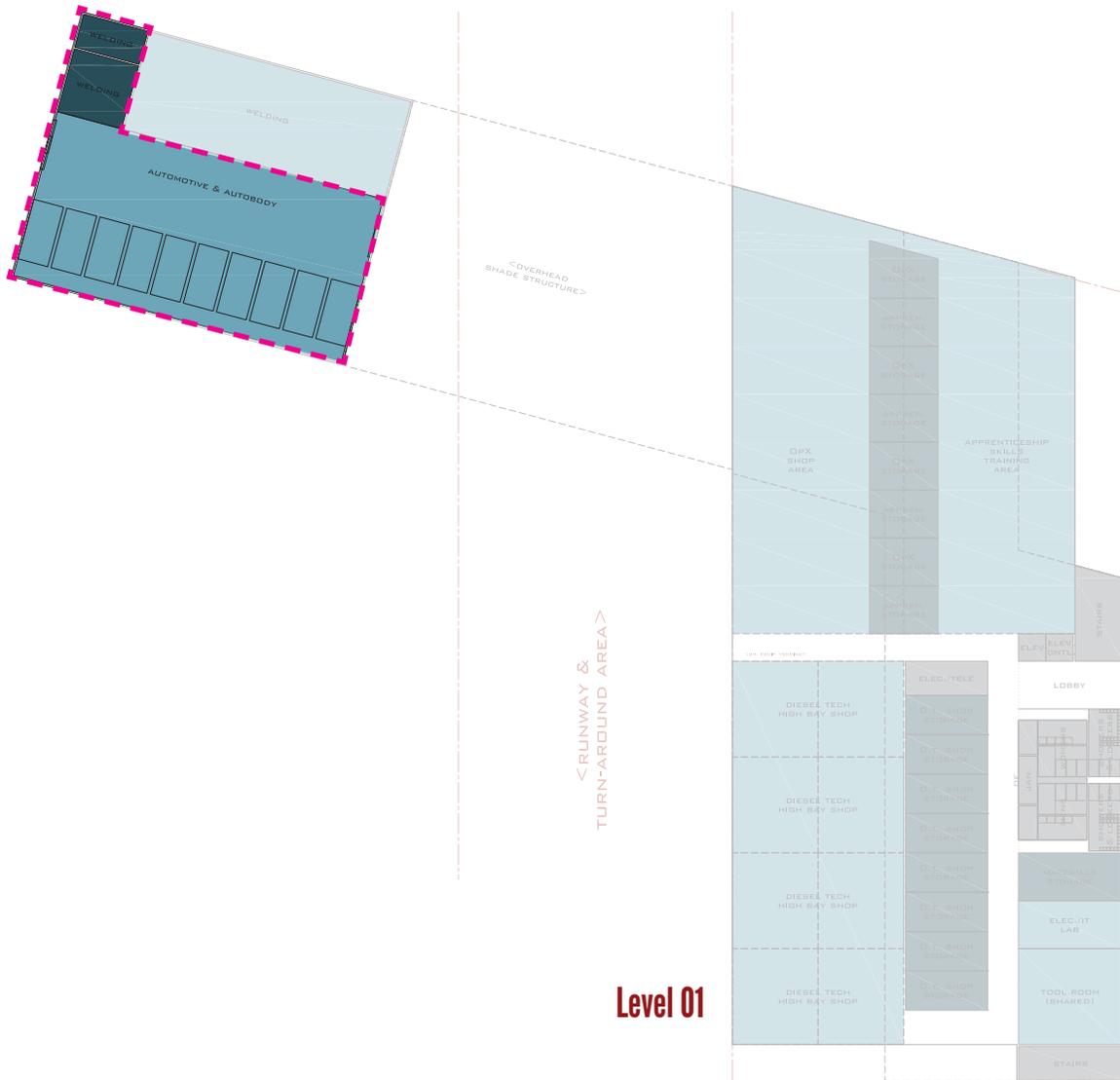
Controls: Vacancy Sensor.



Automotive and Autobody



<< Programming Requirements
Automotive and Autobody



Level 01

AUTOMOTIVE AND AUTOBODY

It is imperative that the Automotive and Autobody programs be located adjacent to the existing runway (with overhead doors) – to provide convenient access to the high-bay shop space. Storage areas and the Paint Bay must be provided immediately adjacent to the shop space. Interior support spaces such as the shared Tool Room and Materials Storage should be located with a degree of convenient proximity, but immediate adjacency is not required. Classrooms and offices may be clustered in zones and shared with the other Industrial Trades programs to maximize efficiencies and shared resources. These programs are new and requirements should be carefully vetted at the beginning of the subsequent design phase for all proper accommodations. Natural daylight and views should be maximized to the extent possible.

Programming Requirements >> HIGH BAY SHOP

Automotive and Autobody

Space Requirements

SPACE SUMMARY:

Type of Space:	High Bay.
Number Required:	1
Total Number:	1
Occupants:	20
Area:	5000 SF
Primary Function:	To provide learning and practice space for automotive program; facilitate work area for 20 vehicles.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Paint bay, storage, welding.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Functional; clean lines; organized.

FINISHES:

Floor:	Sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Open.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 18'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish. Exterior roll up doors.
Frame:	Painted aluminum.
Special:	None required.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-Rolling tool cabinets, metal shop tables, etc.

EQUIPMENT:
-5 ton crane, chassis, eng., trans, reef.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

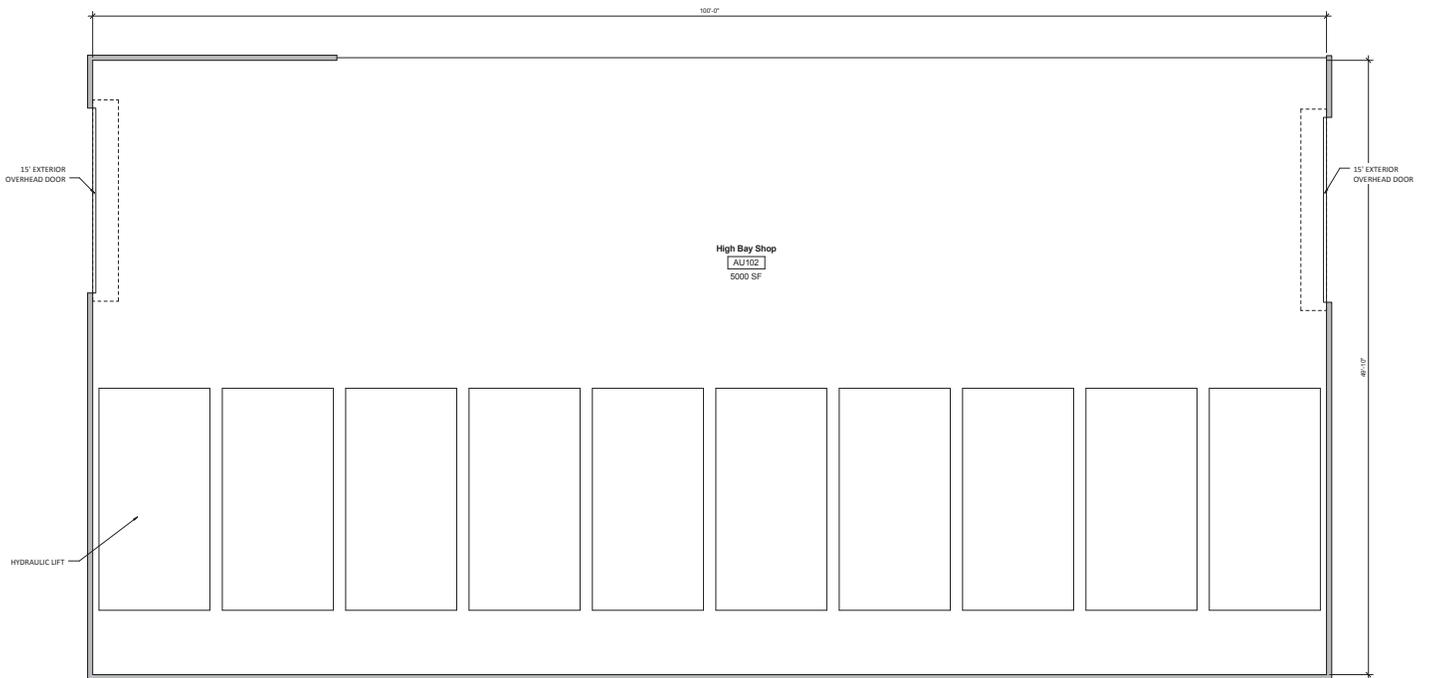
LIGHTING:

Fixture Type: T-8 or T5HO or LED High Bay

Accent Lighting: None required.

Foot Candles: 50

Controls: Occupancy sensor.



Programming Requirements >> PAINT BOOTH

Automotive and Autobody

Space Requirements

SPACE SUMMARY:

Type of Space:	Paint booth.
Number Required:	4
Total Number:	4
Occupants:	2
Area:	338 SF
Primary Function:	To provide ventilated area for spray painting and finishing.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	High bay shop, welding.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Functional; clean lines; organized.

FINISHES:

Floor:	Sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Open.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 18'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:
-Workbench, open shelves.

MOVEABLE FURNISHINGS:
-None required.

EQUIPMENT:
--

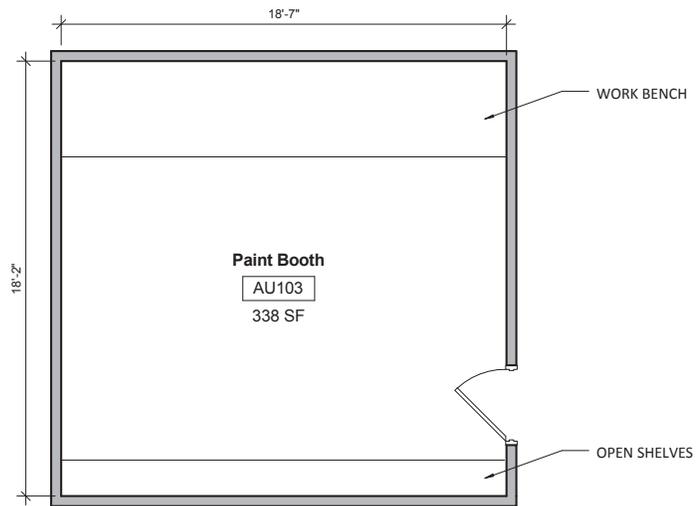
Technical Requirements

MECHANICAL:

Ventilation:	--
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	--
Plumbing:	None required.

ELECTRICAL:

Power:	2 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.
LIGHTING:	
Fixture Type:	T-8 or LED
Accent Lighting:	None required.
Foot Candles:	50
Controls:	Occupancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-4
Area:	160 SF
Primary Function:	Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

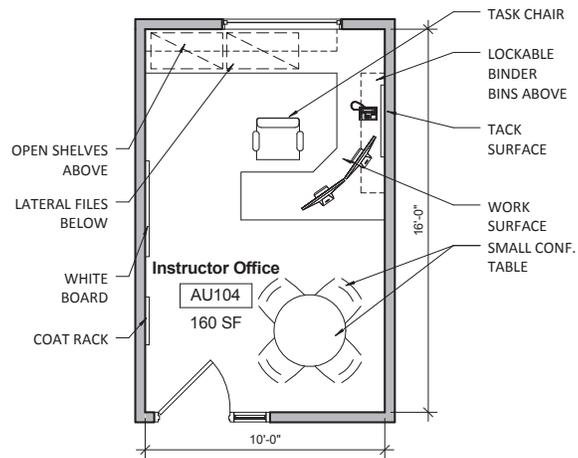
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	120 SF
Primary Function:	To provide storage for records, documents, and supplies.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
 Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
 None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets, open shelves, 24"x24" safe.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

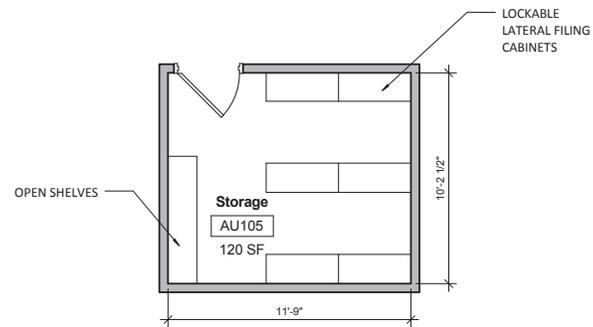
LIGHTING:

Fixture Type: T-8 or LED Lay-in.

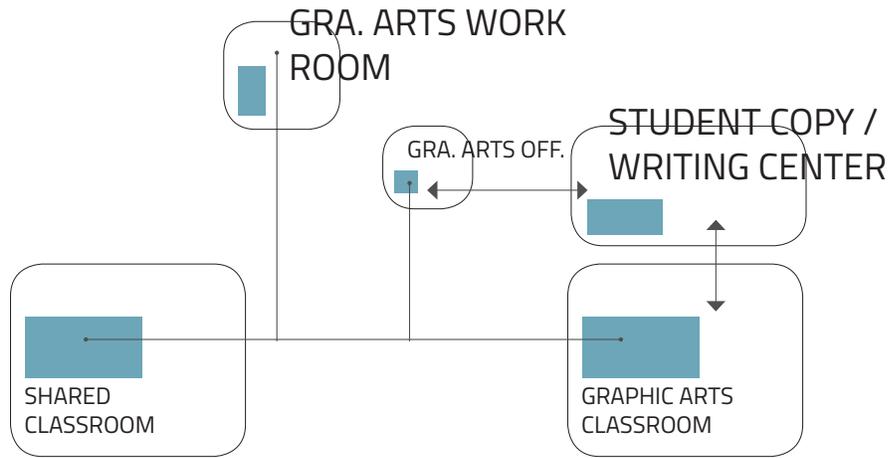
Accent Lighting: None required.

Foot Candles: 20

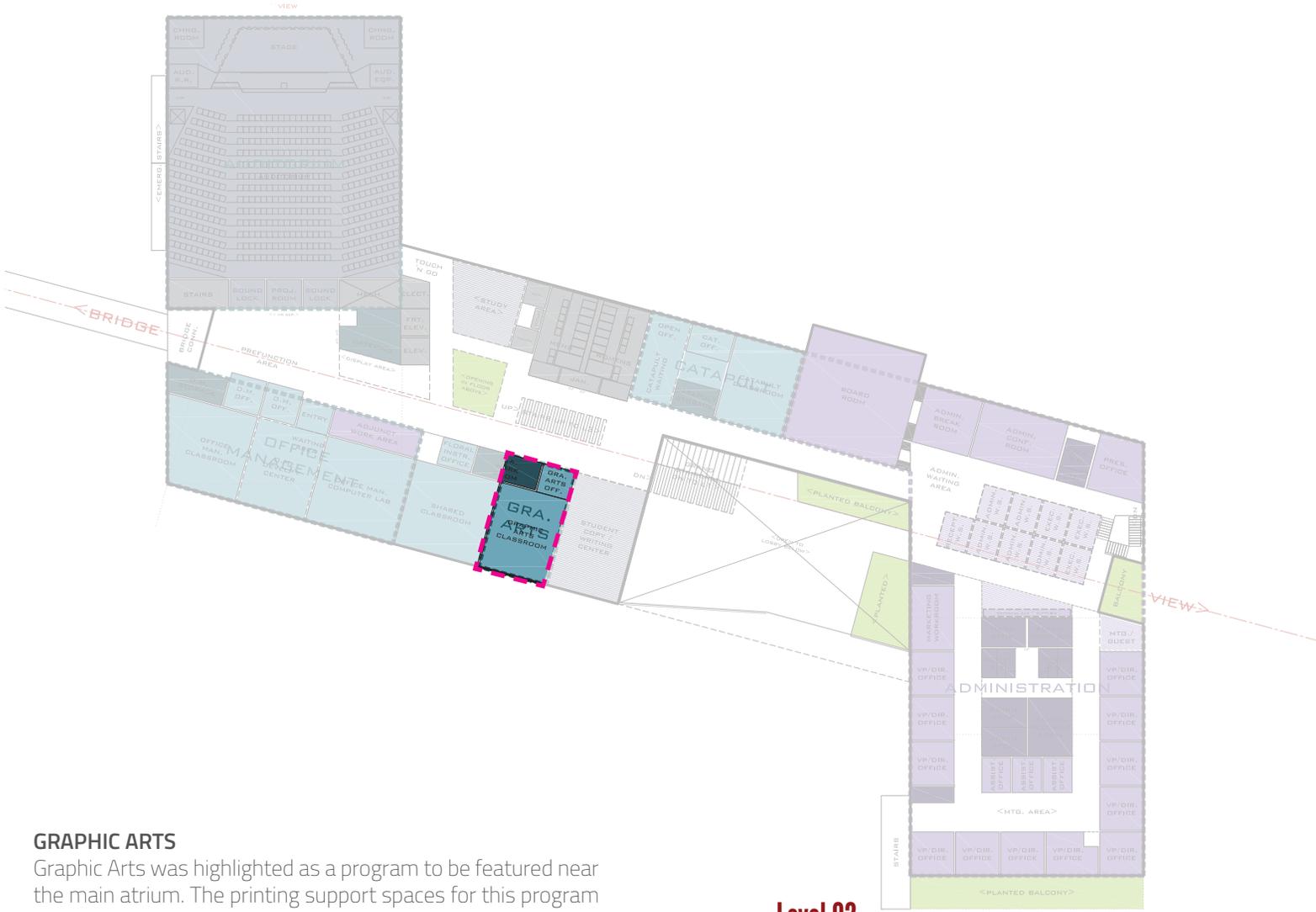
Controls: Vacancy Sensor.



Graphic Arts



<< Programming Requirements
Graphic Arts



Level 02

GRAPHIC ARTS

Graphic Arts was highlighted as a program to be featured near the main atrium. The printing support spaces for this program can double as a campus-wide amenity – and will benefit from close proximity to the Student Copy and Writing center. This is an expanded program and requirements should be carefully vetted at the beginning of the subsequent design phase for all proper accommodations. While natural daylight and views should be maximized to the extent possible, a high-degree of controllability is desired to provide mitigation of unwanted glare on computer screens.

Space Requirements

SPACE SUMMARY:

Type of Space:	Classroom
Number Required:	2
Total Number:	2
Occupants:	18
Area:	728 SF
Primary Function:	Teaching / learning wide range of Custom Fit, Jobs Now, and STIT classes.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Inviting, invigorating, flexible.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
Interior windows with blinds.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter top; white board; tack board.

MOVEABLE FURNISHINGS:

-48 student desks/chairs; 2 instructor desk/chair

EQUIPMENT:

-2 computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall and at instructor station. Floor outlets at student desks. Additional capacity for equipment listed.

Data: 2 devices on opposing walls and at instructor station. 1 wireless airport. Additional capacity for equipment listed.

Phone: 2 devices on opposing walls and at instructor station.

Video: A/V system with internet connection.

Audio: Speakers with volume control.

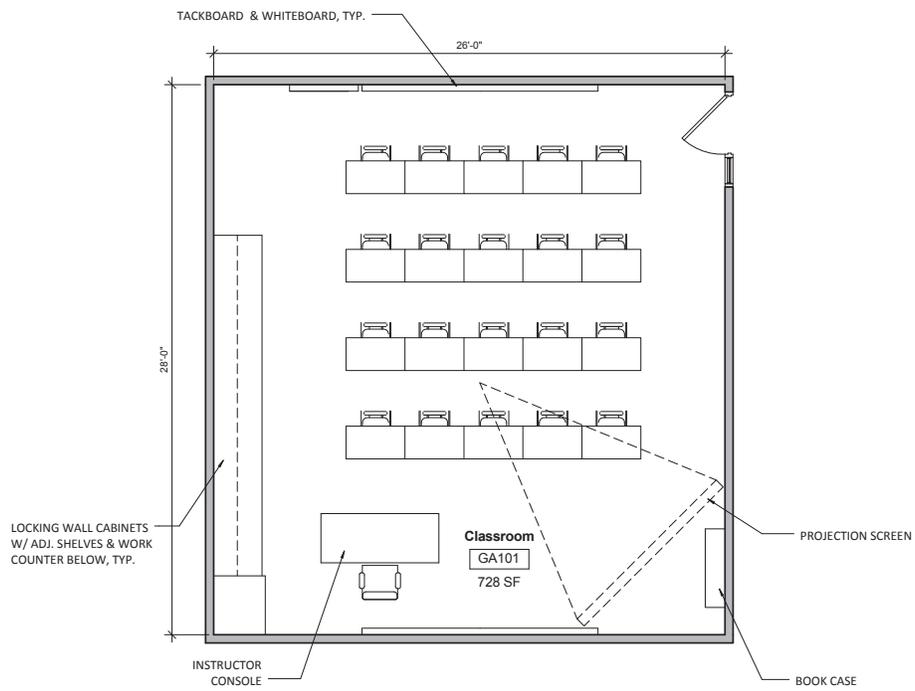
LIGHTING:

Fixture Type: T-8 or Volumetric Lay-in.

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy Sensor, zoned, dimmable w/ preset scenes.



Space Requirements

SPACE SUMMARY:

Type of Space: Workroom

Number Required: 1

Total Number: 1

Occupants: 1-2

Area: 301 SF

Primary Function: Adequate equipment and counter space for copying, printing, and document assembly.

RELATIONSHIPS:

Location: Level 2

Adjacencies: None Required.

Separation: None Required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, and natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustical ceiling tile.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Upper and lower cabinets; counter top; whiteboard; tack board.

MOVEABLE FURNISHINGS:

-Work table, chair.

EQUIPMENT:

-Computer; 2 monitors; printers; label maker; copy machine; desktop speaker phone; paper shredder; fax machine.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

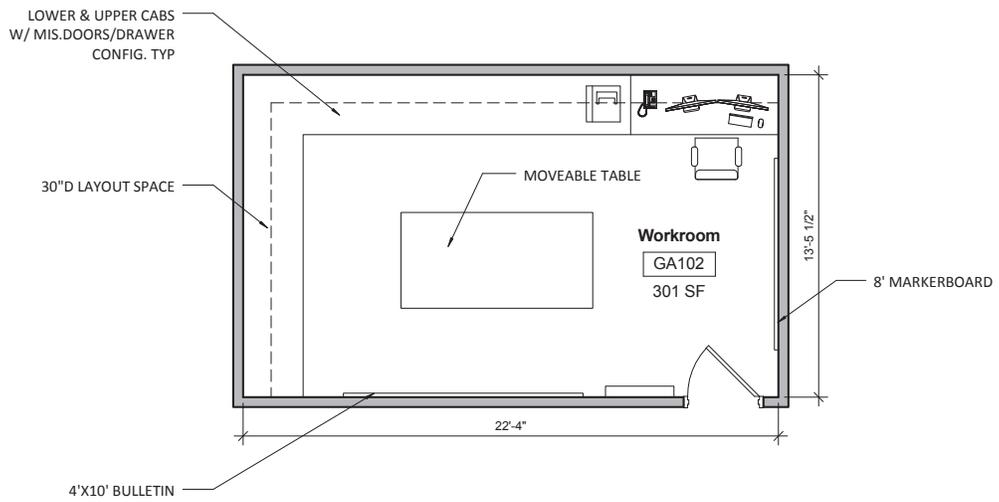
LIGHTING:

Fixture Type: T-8 or LED Lay-in volumetric.

Accent Lighting: LED under upper cabinets.

Foot Candles: 40

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Office.
Number Required:	1
Total Number:	1
Occupants:	1-3
Area:	127 SF
Primary Function:	Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

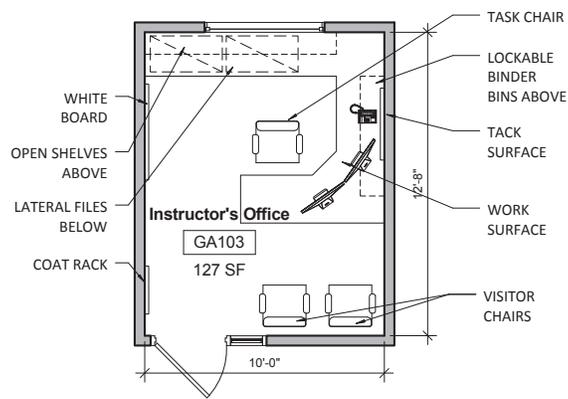
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	121 SF
Primary Function:	To provide storage for records, documents, and supplies.
RELATIONSHIPS:	
Location:	Level 2
Adjacencies:	None Required.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lateral filing cabinets, open shelves, 24"x24" safe.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

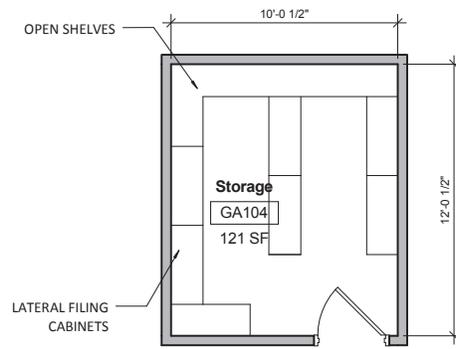
Technical Requirements

MECHANICAL:

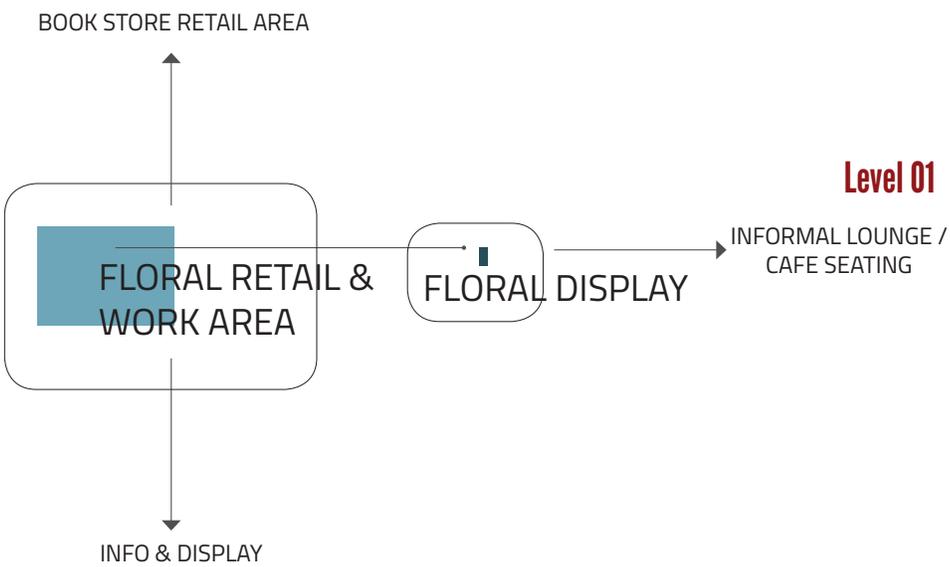
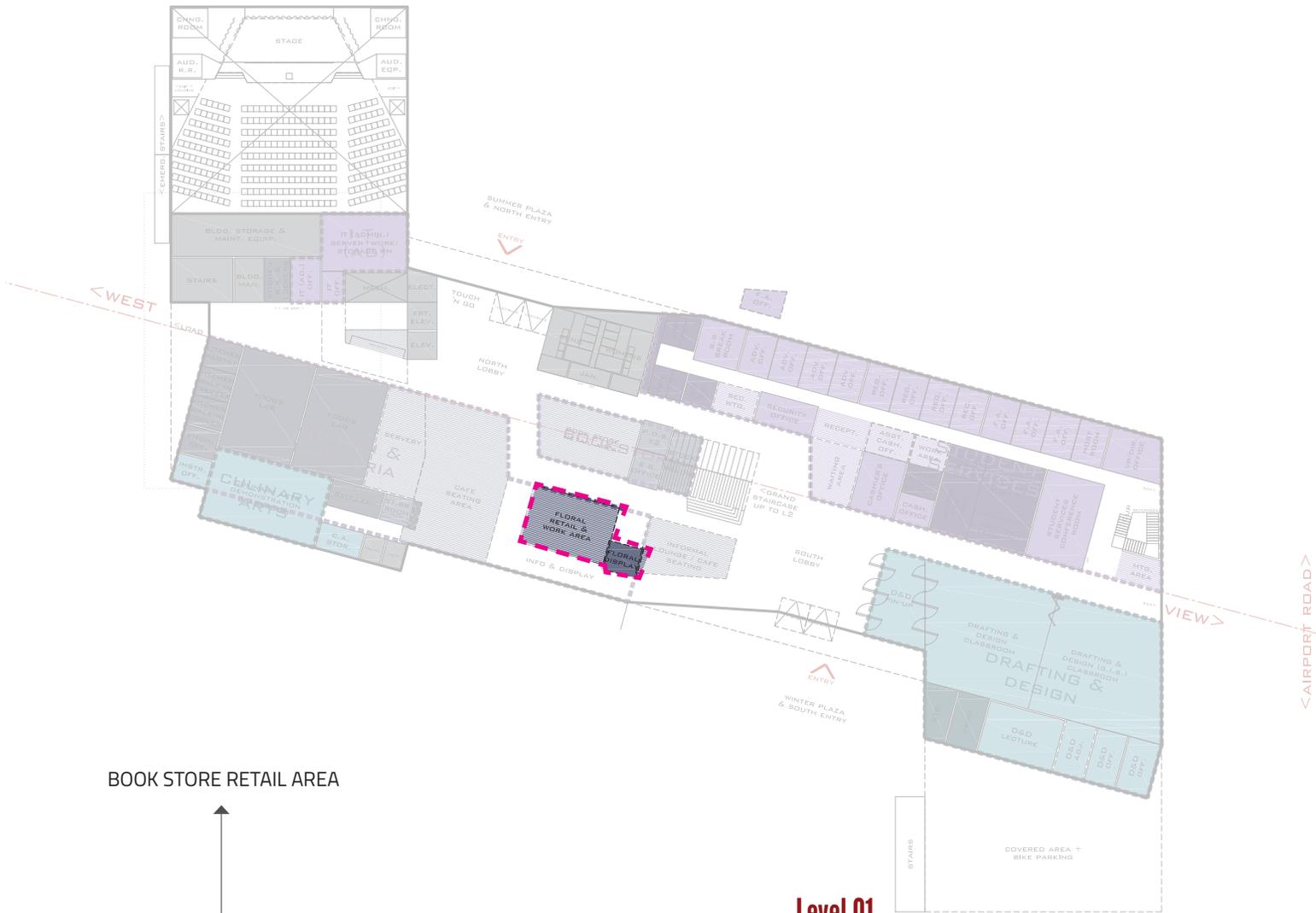
Ventilation:	5 CFM/person + 0.06 CFM/sq. ft.
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	None required.
Plumbing:	None required.

ELECTRICAL:

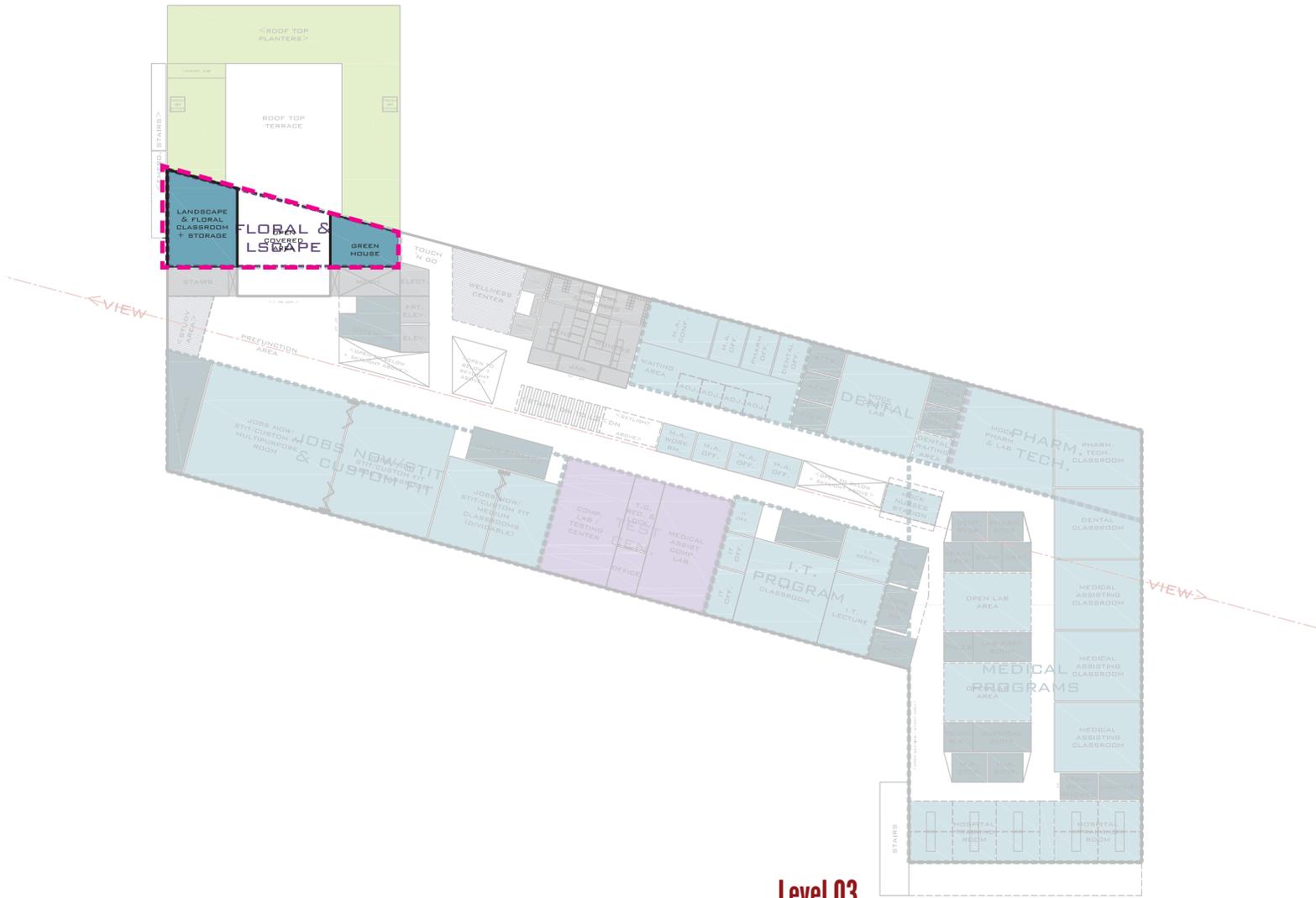
Power:	2 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.
LIGHTING:	
Fixture Type:	T-8 or LED Lay-in.
Accent Lighting:	None required.
Foot Candles:	20
Controls:	Vacancy sensor.



Floor Plan & Adjacency Diagram >>
Floral and Landscape



<< Programming Requirements
Floral and Landscape



Level 03

FLORAL AND LANDSCAPE

Floral and Landscapes program spaces will require a high level of durability and moisture resistance. Ideally, they will be located with convenient exterior access. As illustrated in the Test-Fit floor plan, direct adjacency of the classroom and related greenhouse space to the Rooftop Terrace is a unique hands-on educational opportunity for this program and DXATC. Related spaces such as the Floral Workshop and Retail/Display areas may be located separately within the building to maximize convenient access to the entire building population. These programs will also serve the Event Center concept, providing services for events. Close proximity to the main building elevator is desired to simplify related deliveries. These are newly expanded programs and requirements should be carefully vetted at the beginning of the subsequent design phase for all proper accommodations. Natural daylight and views should be maximized to the extent possible.

Space Requirements

SPACE SUMMARY:

Type of Space:	Classroom
Number Required:	1
Total Number:	1
Occupants:	24
Area:	966 SF
Primary Function:	Demonstrating, practicing, teaching / learning wide range of Floral and Landscape classes.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Outdoor space.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Inviting, invigorating, flexible.

FINISHES:

Floor:	Ceramic Tile or Sealed Concrete.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
Interior windows with blinds.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter tops; white board; tack board, open shelves.

MOVEABLE FURNISHINGS:

-24 student chairs; 1 instructor desk/chair

EQUIPMENT:

-2 computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: Sinks, waste, water, vent.

ELECTRICAL:

Power: 2 duplex receptacles per wall and at instructor station. Floor outlets at student desks. Additional capacity for equipment listed.

Data: 2 devices on opposing walls and at instructor station. 1 wireless airport. Additional capacity for equipment listed.

Phone: 2 devices on opposing walls and at instructor station.

Video: A/V system with internet connection.

Audio: Speakers with volume control.

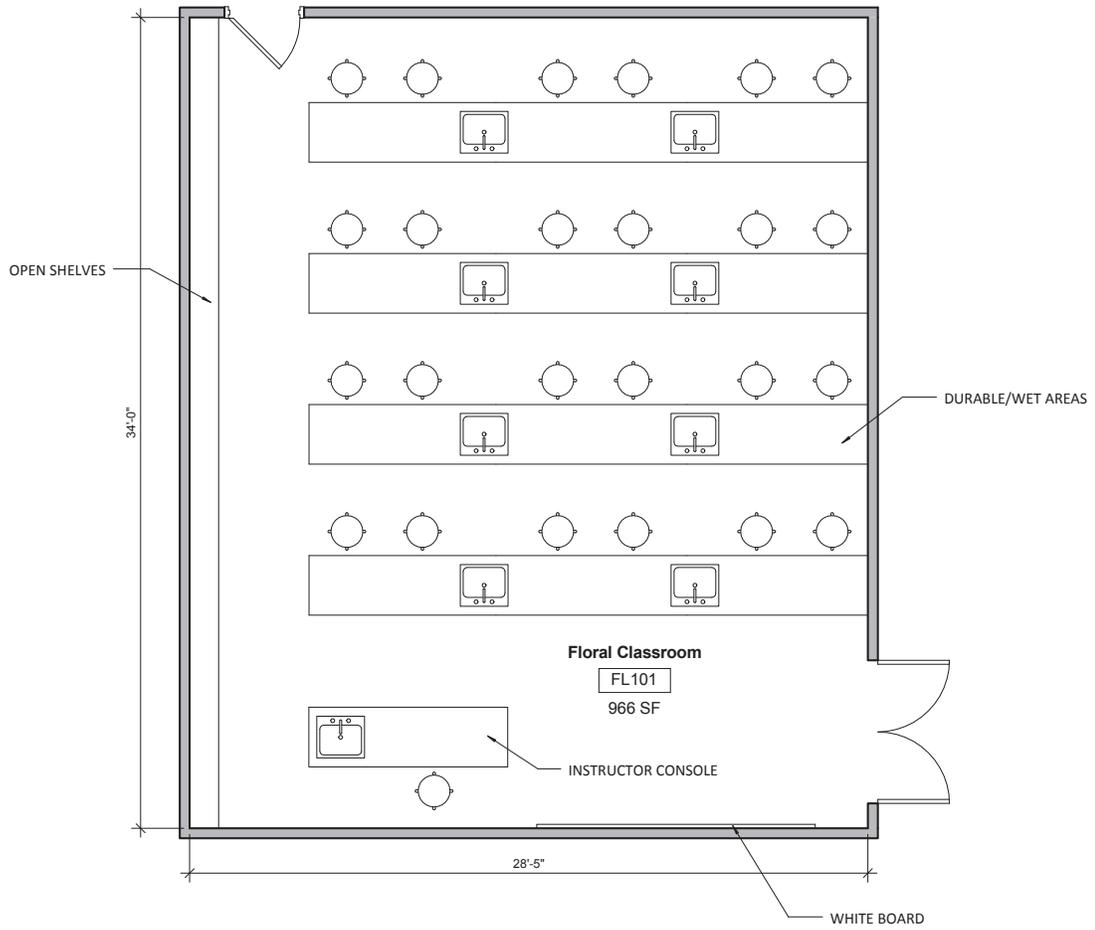
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy Sensor, zoned, dimmable w/ preset scenes, daylighting.



Programming Requirements >> CLASSROOM

Floral and Landscape

Space Requirements

SPACE SUMMARY:

Type of Space:	Classroom
Number Required:	1
Total Number:	1
Occupants:	24
Area:	728 SF
Primary Function:	Teaching / learning wide range of Floral and Landscape classes.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	None required.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Inviting, invigorating, flexible.

FINISHES:

Floor:	Carpet.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
Interior windows with blinds.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; tall storage; counter top; white board; tack board.

MOVEABLE FURNISHINGS:

-24 student desks/chairs; 1 instructor desk/chair

EQUIPMENT:

-2 computers; TV; DVD; trash can; pencil sharpener;

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacles per wall and at instructor station. Floor outlets at student desks. Additional capacity for equipment listed.

Data: 2 devices on opposing walls and at instructor station. 1 wireless airport. Additional capacity for equipment listed.

Phone: 2 devices on opposing walls and at instructor station.

Video: A/V system with internet connection.

Audio: Speakers with volume control.

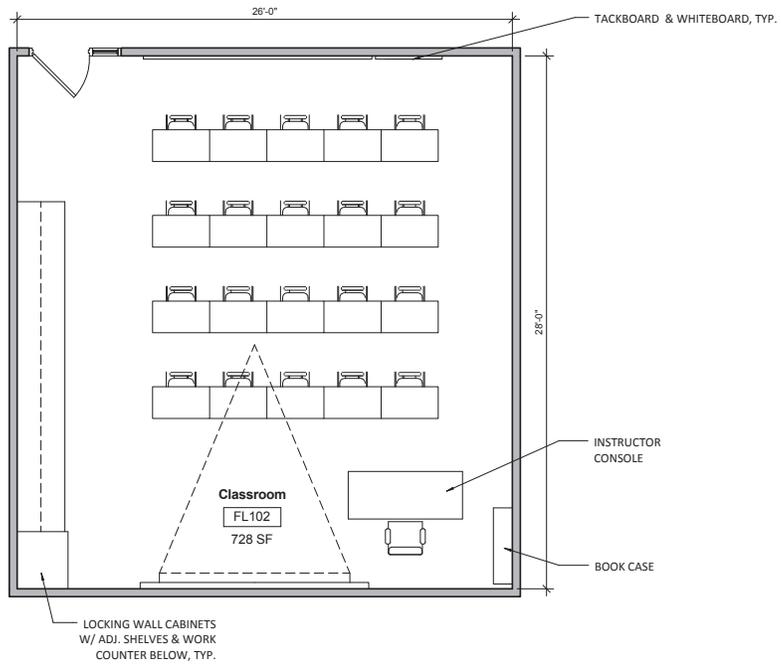
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay in.

Accent Lighting: Task lighting at work surface.

Foot Candles: 40

Controls: Vacancy Sensor, zoned, dimmable w/ preset scenes, daylighting



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	181 SF
Primary Function:	To provide storage for floral supplies, equipment, etc.
RELATIONSHIPS:	
Location:	Level 3
Adjacencies:	Floral classrooms.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Warm; clean lines; organized.

FINISHES:

Floor:	VCT with 4" rubber base.
Walls:	Painted gypsum board.
Ceiling:	Acoustic ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:
-Lateral filing cabinets, open shelves.

MOVEABLE FURNISHINGS:
-None required.

EQUIPMENT:
-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

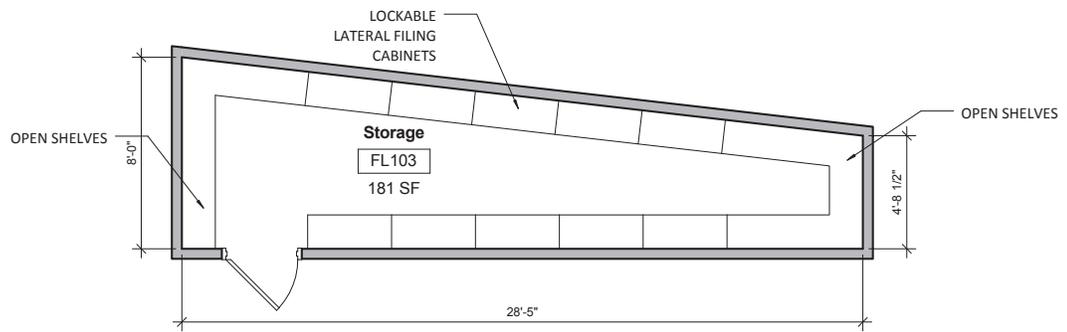
LIGHTING:

Fixture Type: T-8 or LED Lay-in.

Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Office.

Number Required: 1

Total Number: 1

Occupants: 1-4

Area: 160 SF

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 3

Adjacencies: None Required.

Separation: Mechanical and elevator rooms, noisy public areas.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Acoustic ceiling tile.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: Sound isolation.

Architectural Requirements

WINDOWS:

Type: Exterior.

Glazing: Low-E.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

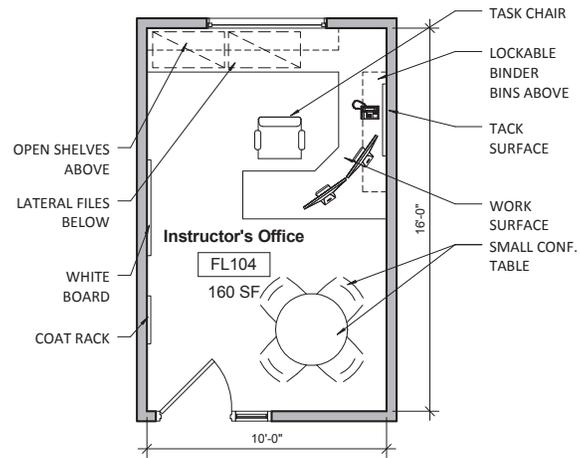
LIGHTING:

Fixture Type: LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor, Daylighting w/ continuous dimming.



Space Requirements

SPACE SUMMARY:

Type of Space:	Retail.
Number Required:	1
Total Number:	1
Occupants:	6
Area:	232 SF
Primary Function:	Sales of arrangements/products from Floral and Landscape.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Floral Work Room, Floral Display / Cooler.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Visually accessible, comfortable, natural lighting.

FINISHES:

Floor:	Ceramic Tile or Sealed Concrete.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	None required.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:
-2 POS, display shelves, retail display.

MOVEABLE FURNISHINGS:
-None required.

EQUIPMENT:
-Cash registers.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

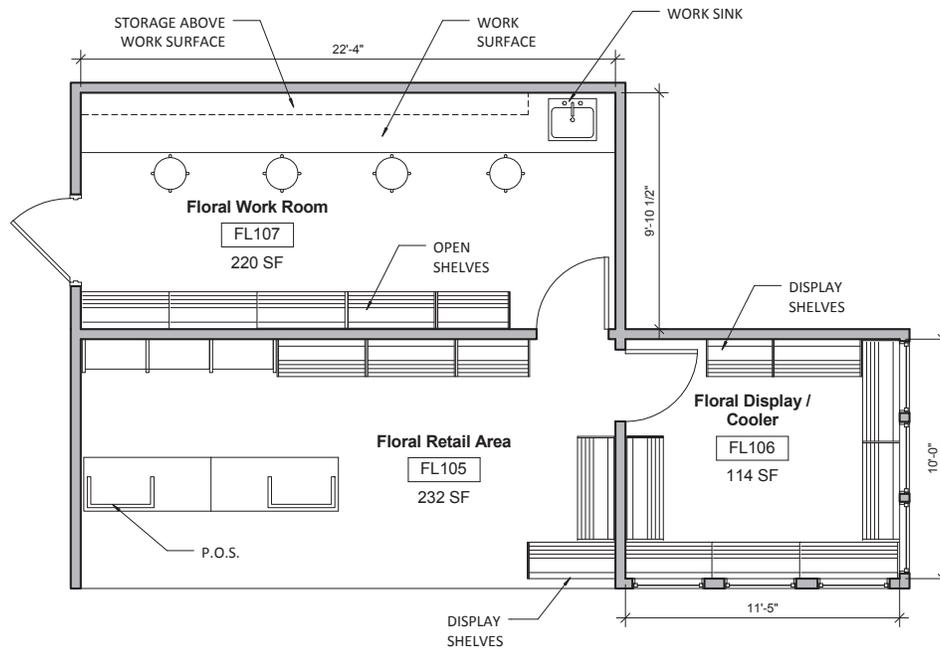
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Cooler.
Number Required:	1
Total Number:	1
Occupants:	1
Area:	114 SF
Primary Function:	Cold storage of arrangements/products from Floral and Landscape.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Floral Work Room, Floral Retail.
Separation:	None required.

Architectural Requirements

DESIGN/AESTHETIC:
Durable finishes, inviting feel.

FINISHES:

Floor:	Metal.
Walls:	Metal.
Ceiling:	Metal.
Specialty Finishes:	None required.
Sound:	Full sound construction.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:

Auto locking door with emergency latch on interior.

DOORS:

Type:	Hollow metal.
Frame:	Painted aluminum.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:

-Metal shelving.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

_**

Technical Requirements

MECHANICAL:

Ventilation:	None.
Summer Design Temp:	35 F
Winter Design Temp:	35 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	Freezer.
Plumbing:	Indirect floor sink.

ELECTRICAL:

Power:	As required for equipment.
Phone/Data:	None required.
Video:	None required.
Audio:	None required.

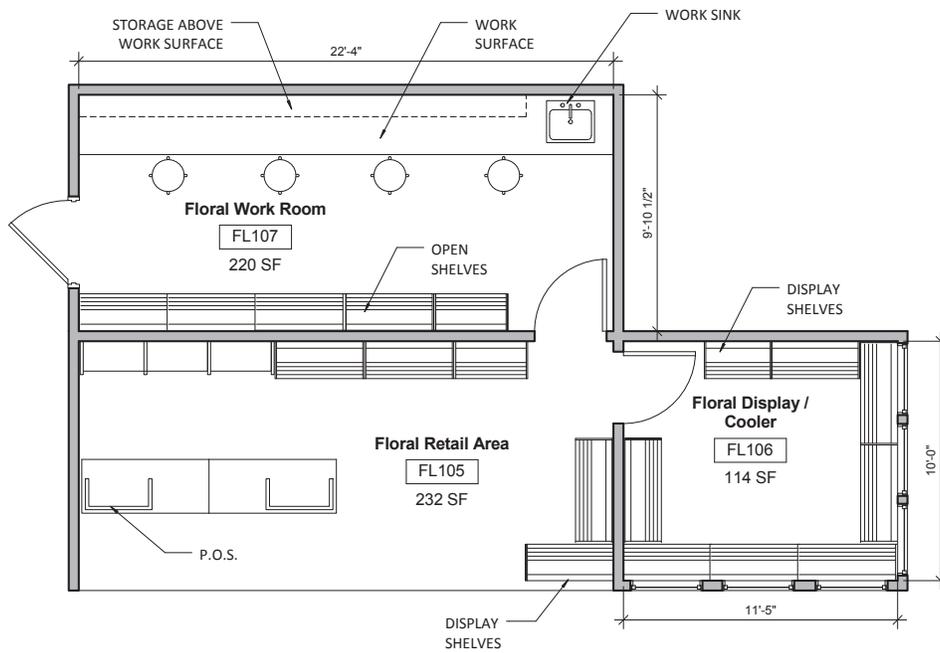
Fixture Type: T-8 or LED and/or downlights

Accent Lighting: None required.

Foot Candles: 50

VCP: 70

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Workroom
Number Required:	1
Total Number:	1
Occupants:	4
Area:	220 SF
Primary Function:	Work room for floral display and retail areas.

RELATIONSHIPS:

Location:	Level 1
Adjacencies:	Floral retail. Floral display.
Separation:	None Required.

Architectural Requirements

DESIGN/AESTHETIC:
Calm, attractive, professional.

FINISHES:

Floor:	Linoleum.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tile.
Specialty Finishes:	None required.
Sound:	None required.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	None required.

Architectural Requirements

WINDOWS:	
Type:	None required.
Glazing:	None required.
Natural Light:	None required.

CASEWORK/FIXED EQUIPMENT:

-Lockable upper and lower cabinets, counter top, whiteboard, tackboard, open shelves.

MOVEABLE FURNISHINGS:

-Chairs.

EQUIPMENT:

-Floral equipment.

Technical Requirements

MECHANICAL:

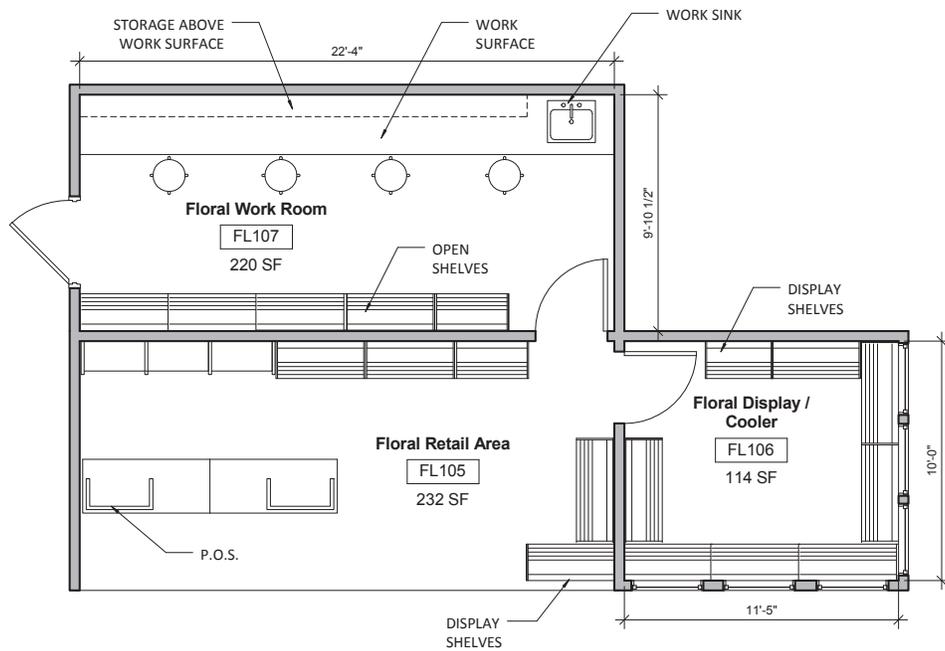
Ventilation:	6-10 AC/hr per ANSI Z9.5
Summer Design Temp:	72 F
Winter Design Temp:	72 F
Controls:	Individual direct digital controls.
Sound Criteria:	35 (NC/RC)
Special Systems:	None required.
Plumbing:	Hand wash sink, water, waste and vent.

ELECTRICAL:

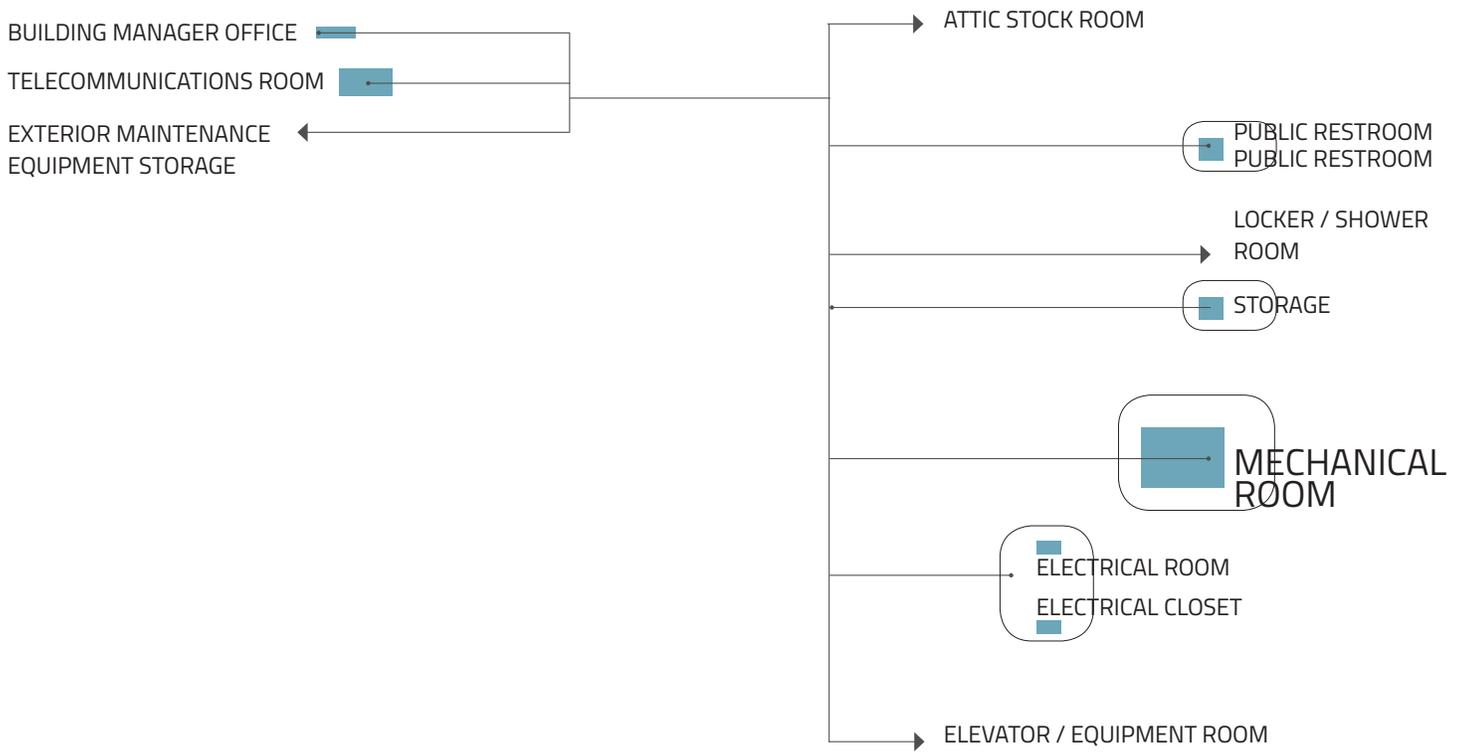
Power:	1 duplex receptacle per wall. Additional capacity for equipment listed.
Phone/Data:	2 devices on opposing walls.
Video:	None required.
Audio:	None required.

LIGHTING:

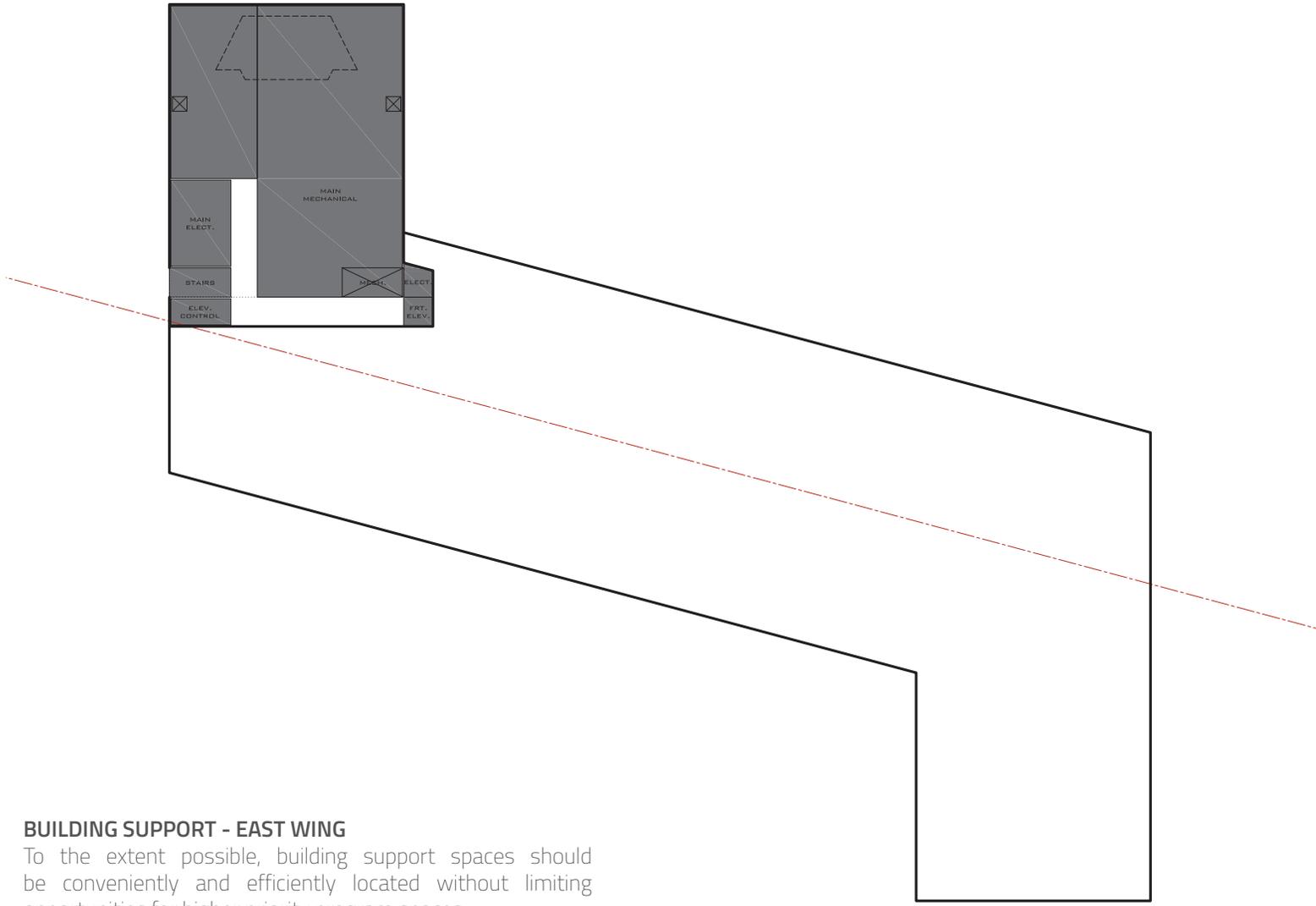
Fixture Type:	T-8 or LED Lay-in volumetric.
Accent Lighting:	LED under upper cabinet.
Foot Candles:	50
Controls:	Vacancy Sensor.



Building Support - East Wing



<< Programming Requirements
Building Support - East Wing



BUILDING SUPPORT - EAST WING

To the extent possible, building support spaces should be conveniently and efficiently located without limiting opportunities for higher priority program spaces.

Level 00

Space Requirements

SPACE SUMMARY:

Type of Space: Restroom**Number Required:** 2 per gender**Total Number:** 4**Occupants:****Area:** 256 SF**Primary Function:** Building support space.

RELATIONSHIPS:

Location: Level 1 & 2**Adjacencies:** None Required.**Separation:** Separation between stalls and genders.**Architectural Requirements****DESIGN/AESTHETIC:**
None required.

FINISHES:

Floor: Porcelain tile, slope to floor drain.**Walls:** Ceramic tile.**Ceiling:** Painted gypsum board.**Specialty Finishes:** None required.**Sound:** Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"**PRIVACY/SECURITY:**
Separated/private stalls

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: None required.**Glazing:** None required.**Natural Light:** None required.

CASEWORK/FIXED EQUIPMENT:

-Water closet; urinal; lavatory; toilet partition; urinal screen; mirror; grab bars; dispensers; waste receptacles.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

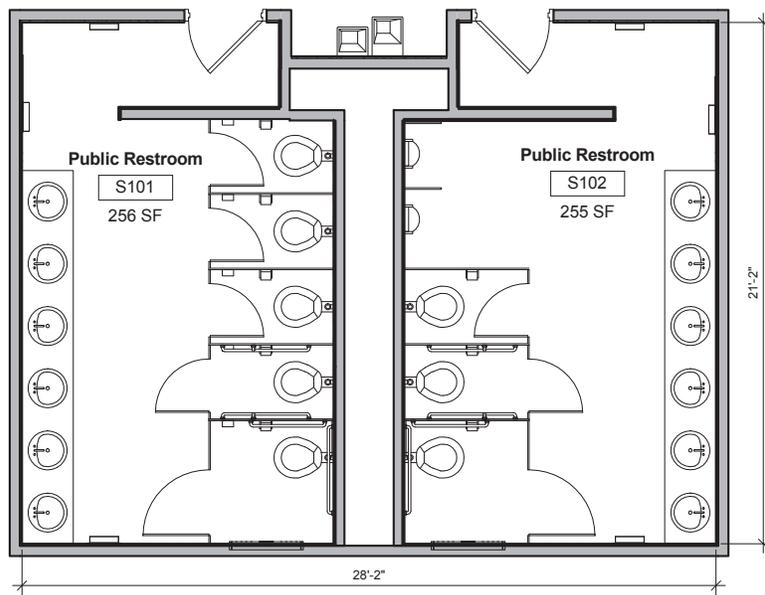
Ventilation: 1 CFM/sq. ft. 100% Exhaust.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 40 (NC/RC)**Special Systems:** 5 min. air exchange exhaust.**Plumbing:** Wall hung flush valve water closet and urinals; wall hung lavatory; shower; floor drain; water, waste, and venting;

ELECTRICAL:

Power: 1 GFCI duplex outlet per wall.**Phone/Data:** None required.**Video:** None required.**Audio:** None required.

LIGHTING:

Fixture Type: T-8 or LED and/or downlights**Accent Lighting:** Required at mirrors.**Foot Candles:** 30**Controls:** Occupancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Restroom**Number Required:** 1 per gender**Total Number:** 2

Occupants:

Area: 256 SF**Primary Function:** Building support space.

RELATIONSHIPS:

Location: Level 3**Adjacencies:** None Required.**Separation:** Separation between stalls and genders.**Architectural Requirements****DESIGN/AESTHETIC:**
None required.

FINISHES:

Floor: Porcelain tile, slope to floor drain.**Walls:** Ceramic tile.**Ceiling:** Painted gypsum board.**Specialty Finishes:** None required.**Sound:** Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"**PRIVACY/SECURITY:**
Separated/private stalls

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: None required.**Glazing:** None required.**Natural Light:** None required.

CASEWORK/FIXED EQUIPMENT:

-Water closet; urinal; lavatory; toilet partition; urinal screen; mirror; grab bars; dispensers; waste receptacles.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

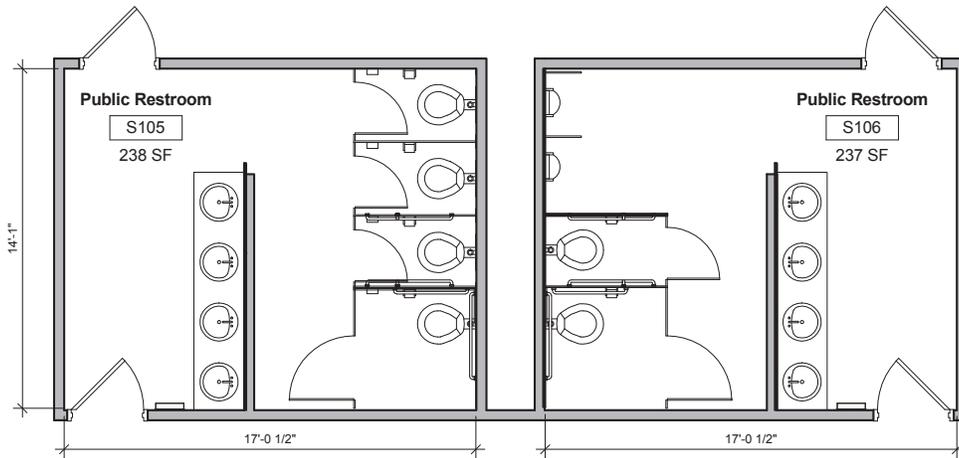
Ventilation: 1 CFM/sq. ft. 100% Exhaust.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 40 (NC/RC)**Special Systems:** 5 min. air exchange exhaust.**Plumbing:** Wall hung flush valve water closet and urinals; wall hung lavatory; shower; floor drain; water, waste, and venting;

ELECTRICAL:

Power: 1 GFCI duplex outlet per wall.**Phone/Data:** None required.**Video:** None required.**Audio:** None required.

LIGHTING:

Fixture Type: T-8 or LED and/or downlights**Accent Lighting:** Required at mirrors.**Foot Candles:** 30**Controls:** Occupancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Locker room.**Number Required:** 1 per gender**Total Number:** 2**Occupants:****Area:** 261 SF**Primary Function:** Building support space.

RELATIONSHIPS:

Location: Level 3**Adjacencies:** Restroom. Exercise room.**Separation:** Separation between stalls and genders.**Architectural Requirements****DESIGN/AESTHETIC:**
None required.

FINISHES:

Floor: Porcelain tile, slope to floor drain.**Walls:** Ceramic tile.**Ceiling:** Painted gypsum board.**Specialty Finishes:** None required.**Sound:** Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"**PRIVACY/SECURITY:**
Separated/private stalls

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: None required.**Glazing:** None required.**Natural Light:** None required.

CASEWORK/FIXED EQUIPMENT:

-Lockers, benches, shower stalls.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

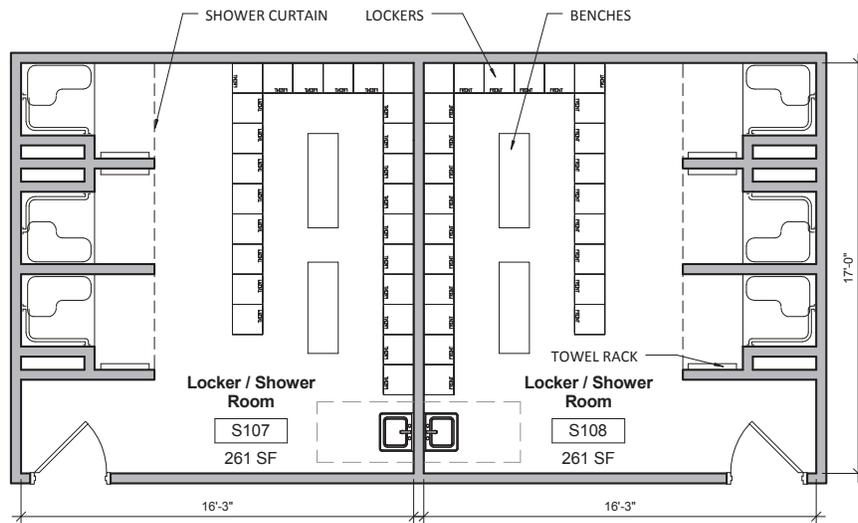
Ventilation: 1 CFM/sq. ft. 100% Exhaust.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 40 (NC/RC)**Special Systems:** 5 min. air exchange exhaust.**Plumbing:** Wall hung lavatory; showers; floor drains; water, waste, and venting;

ELECTRICAL:

Power: 1 GFCI duplex outlet per wall.**Phone/Data:** None required.**Video:** None required.**Audio:** None required.

LIGHTING:

Fixture Type: T-8 or LED and/or downlights.**Accent Lighting:** Required at mirrors.**Foot Candles:** 30**Controls:** Occupancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Mechanical room.
Number Required:	1
Total Number:	1
Occupants:	1
Area:	4750 SF
Primary Function:	Accommodate mechanical equipment, piping, ducts, and control systems.
RELATIONSHIPS:	
Location:	Level 0
Adjacencies:	Centrally located for piping/ducts.
Separation:	Quiet areas; high traffic public areas.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Sealed concrete; slope floor to drains.
Walls:	Painted gypsum board.
Ceiling:	Open.
Specialty Finishes:	None required.
Sound:	Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-None required.

EQUIPMENT:

-See Mechanical Design Criteria in the Building Requirements Section of this document for Equipment list.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 78 F

Winter Design Temp: 68 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: 10 min. air exchange exhaust; provides summer cooling.

Plumbing: None.

ELECTRICAL:

Power: 1 duplex outlet every 10'-0"

Phone/Data: Data connection to DDC controls.

Video: None required.

Audio: None required.

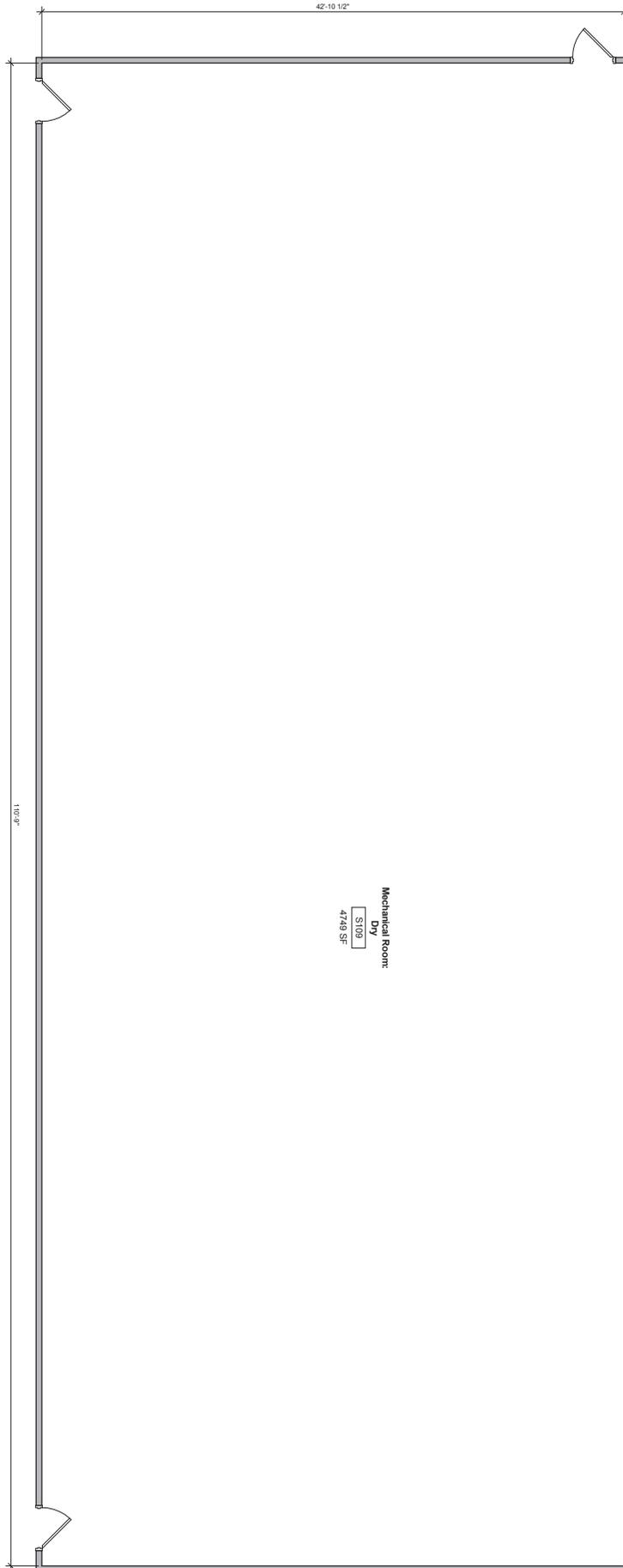
LIGHTING:

Fixture Type: T-8 or LED Lay-in or striplight

Accent Lighting: None required.

Foot Candles: 30

Controls: Manual Switch.



Space Requirements

SPACE SUMMARY:

Type of Space:	Mechanical room.
Number Required:	1
Total Number:	1
Occupants:	1
Area:	4750 SF
Primary Function:	Accommodate mechanical equipment, piping, ducts, and control systems.
RELATIONSHIPS:	
Location:	Level 0
Adjacencies:	Centrally located for piping/ducts.
Separation:	Quiet areas; high traffic public areas.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Sealed concrete; slope floor to drains.
Walls:	Painted gypsum board.
Ceiling:	Open.
Specialty Finishes:	None required.
Sound:	Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-None required.

EQUIPMENT:

-See Mechanical Design Criteria in the Building Requirements Section of this document for Equipment list.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 78 F

Winter Design Temp: 68 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: 10 min. air exchange exhaust; provides summer cooling.
Plumbing: Hot and cold water hose bib floor drain; water, waste and venting. .

ELECTRICAL:

Power: 1 duplex outlet every 10'-0"

Phone/Data: Data connection to DDC controls.

Video: None required.

Audio: None required.

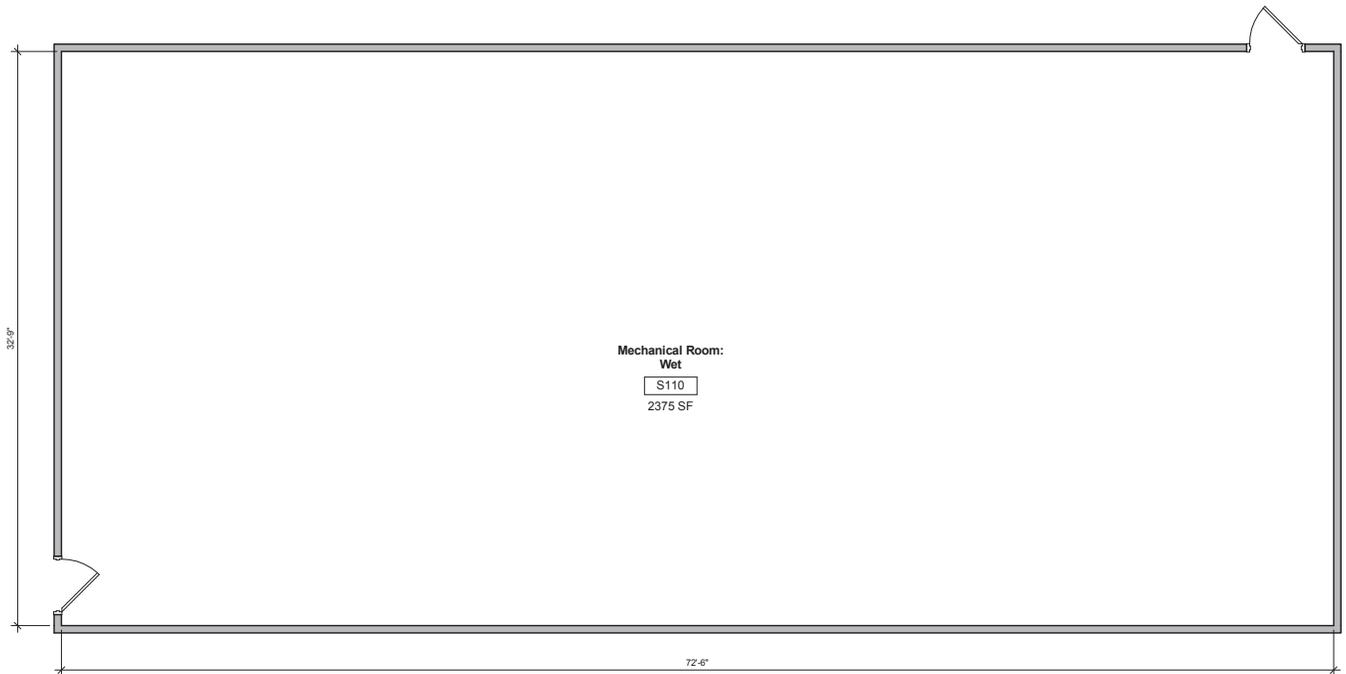
LIGHTING:

Fixture Type: T-8 or LED Lay-in or striplight.

Accent Lighting: None required.

Foot Candles: 30

Controls: Manual Switch.



Space Requirements

SPACE SUMMARY:

Type of Space:	Electrical room.
Number Required:	1
Total Number:	1
Occupants:	0
Area:	593 SF
Primary Function:	Provide central distribution for building electrical systems.
RELATIONSHIPS:	
Location:	Level 0
Adjacencies:	Centrally located
Separation:	Quiet areas; Main telecommunications room and closets; high traffic public areas.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Acoustical ceiling tiles.
Specialty Finishes:	None required.
Sound:	Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 10'-0" Min.

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-See Electrical Design Criteria in the Building Requirements Section of this document for Equipment list.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 74 F

Winter Design Temp: 74 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: 5 min. air exchange exhaust.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex outlet every 10'-0"

Phone/Data: 1 device per wall.

Video: None required.

Audio: None required.

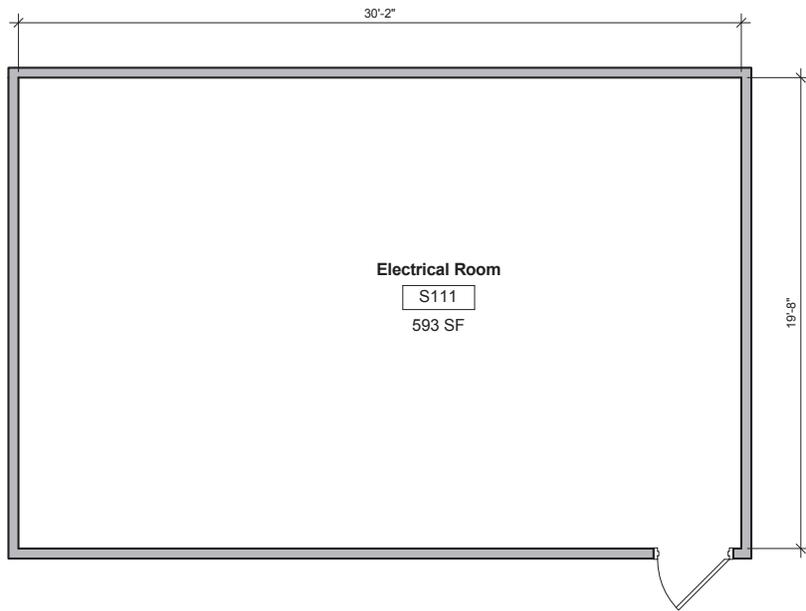
LIGHTING:

Fixture Type: T-8 or LED Lay-in or striplight.

Accent Lighting: None required.

Foot Candles: 30

Controls: Manual Switch.



Space Requirements

SPACE SUMMARY:

Type of Space:	Electrical closet.
Number Required:	1
Total Number:	1
Occupants:	0
Area:	593 SF
Primary Function:	Provide central distribution for building electrical systems.
RELATIONSHIPS:	
Location:	Level 1-3
Adjacencies:	Centrally located
Separation:	Quiet areas; Main telecommunications room and closets; high traffic public areas.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Suspended 2'x4' ACT.
Specialty Finishes:	None required.
Sound:	Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-See Electrical Design Criteria in the Building Requirements Section of this document for Equipment list.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 74 F

Winter Design Temp: 74 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: 5 min. air exchange exhaust.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex outlet every 10'-0"

Phone/Data: 1 device per wall.

Video: None required.

Audio: None required.

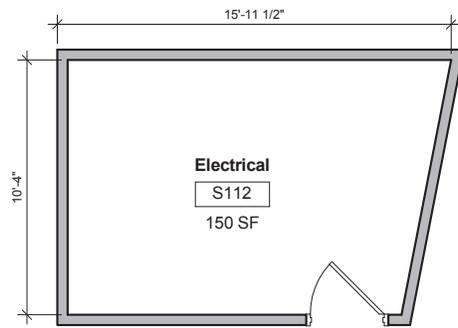
LIGHTING:

Fixture Type: T-8 or LED Lay-in or striplight.

Accent Lighting: None required.

Foot Candles: 30

Controls: Manual Switch.



Space Requirements

SPACE SUMMARY:

Type of Space: Office.

Number Required: 1

Total Number: 1

Occupants: 1-4

Area: 160 SF

Primary Function: Day-to-day operations, individual and small group meetings, written and verbal communications, daily document access.

RELATIONSHIPS:

Location: Level 1

Adjacencies: Mechanical rooms.

Separation: None required.

Architectural Requirements

DESIGN/AESTHETIC:

Visually accessible, comfortable, natural lighting.

FINISHES:

Floor: Carpet.

Walls: Painted gypsum board.

Ceiling: Painted gypsum board.

Specialty Finishes: None required.

Sound: Secure and sound proof ceiling, insulated for sound control.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type: Solid core wood with clear finish.

Frame: Painted aluminum with glazed sidelight.

Special: None required.

Architectural Requirements

WINDOWS:

Type: None required.

Glazing: None required.

Natural Light: Desirable.

CASEWORK/FIXED EQUIPMENT:

-Lockable cabinets; Lateral files; Coat rack; Whiteboard.

MOVEABLE FURNISHINGS:

-Desk; Filing cabinets; Book shelves; Guest chairs; Small conference table

EQUIPMENT:

-Computer; 2 Monitors; Printer; Conference phone; Shredder; Flip file and paper management system.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: Rough-in for future capacity.

Audio: None required.

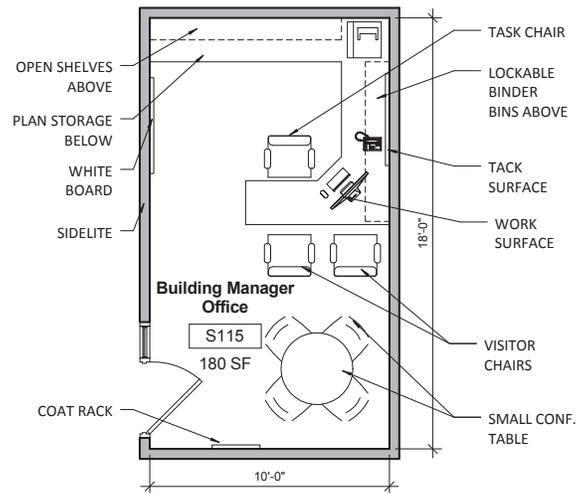
LIGHTING:

Fixture Type: T-8 or LED Volumetric Lay-in or Suspended Linear.

Accent Lighting: Task lighting at work surface.

Foot Candles: 20-30 Ambient / 40-50 Task

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Telecommunications closet.
Number Required:	1
Total Number:	1
Occupants:	0
Area:	151 SF
Primary Function:	Provide central distribution for building telecommunications and data systems.
RELATIONSHIPS:	
Location:	Level 1-3
Adjacencies:	Centrally located
Separation:	Quiet areas; Main telecommunications room and closets; high traffic public areas.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Suspended 2'x4' ACT.
Specialty Finishes:	None required.
Sound:	Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-None required.

EQUIPMENT:
-See Electrical Design Criteria in the Building Requirements Section of this document for Equipment list.

Technical Requirements

MECHANICAL:
Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 70 F

Winter Design Temp: 70 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: 5 min. air exchange exhaust.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex outlet every 10'-0", min. 2 per wall. Dedicated duplex receptacle per data rack tied into emergency power system.

Data: Data head end equipment.

Phone: 1 device minimum; D-mark for utility.

Video: None required.

Audio: None required.

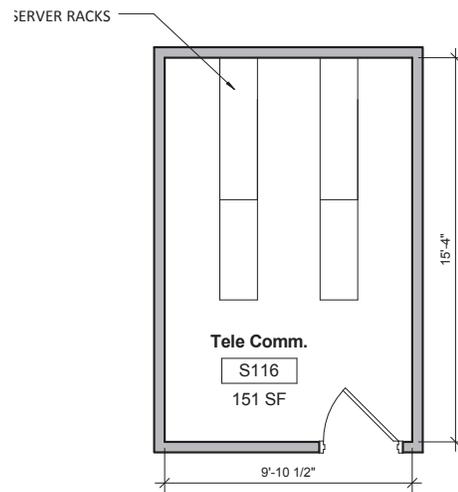
LIGHTING:

Fixture Type: T-8 or LED Lay-in or striplight.

Accent Lighting: None required.

Foot Candles: 30

Controls: Manual Switch.



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	496 SF
Primary Function:	To provide storage for building maintenance equipment and general supplies.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	None Required.
Separation:	Quiet areas; high traffic public areas.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Suspended 2'x4' ACT.
Specialty Finishes:	None required.
Sound:	Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-None required.

EQUIPMENT:
-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
2 devices on opposing walls.

Phone/Data:

Video: None required.

Audio: None required.

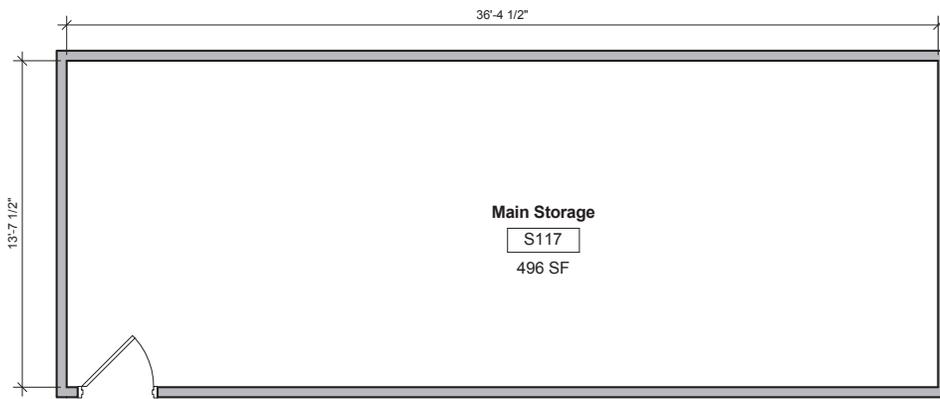
LIGHTING:

Fixture Type: T-8 or LED Lay-in.

Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	496 SF
Primary Function:	To provide storage for building maintenance equipment and general supplies.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	None Required.
Separation:	Quiet areas; high traffic public areas.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Suspended 2'x4' ACT.
Specialty Finishes:	None required.
Sound:	Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-None required.

EQUIPMENT:
-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.

Phone/Data: 2 devices on opposing walls.

Video: None required.

Audio: None required.

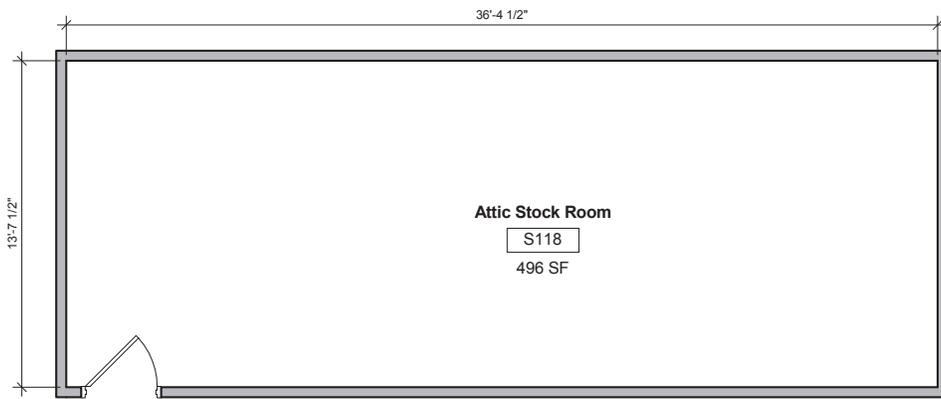
LIGHTING:

Fixture Type: T-8 or LED Lay-in.

Accent Lighting: None required.

Foot Candles: 20

Controls: Vacancy Sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Storage
Number Required:	1
Total Number:	1
Occupants:	1
Area:	400 SF
Primary Function:	To provide storage for exterior maintenance equipment and general supplies.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	None Required.
Separation:	Quiet areas; high traffic public areas.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Suspended 2'x4' ACT.
Specialty Finishes:	None required.
Sound:	Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:
-None required.

MOVEABLE FURNISHINGS:
-None required.

EQUIPMENT:
-None required.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 72 F

Winter Design Temp: 72 F

Controls: Individual direct digital controls.

Sound Criteria: 35 (NC/RC)

Special Systems: None required.

Plumbing: None required.

ELECTRICAL:

Power: 2 duplex receptacle per wall. Additional capacity for equipment listed.
2 devices on opposing walls.

Phone/Data:

Video: None required.

Audio: None required.

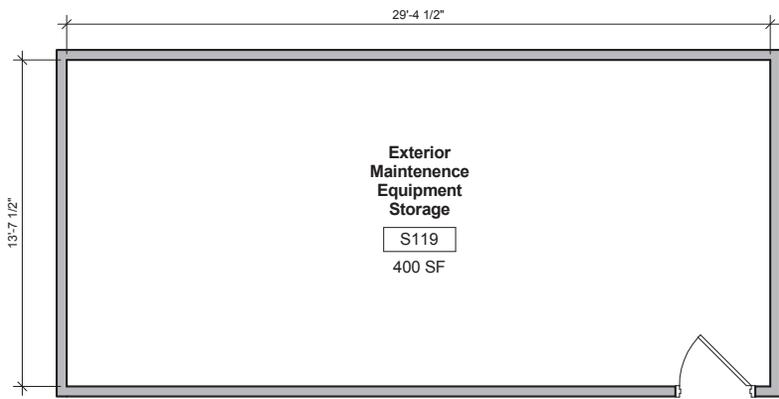
LIGHTING:

Fixture Type: T-8 or LED Lay-in.

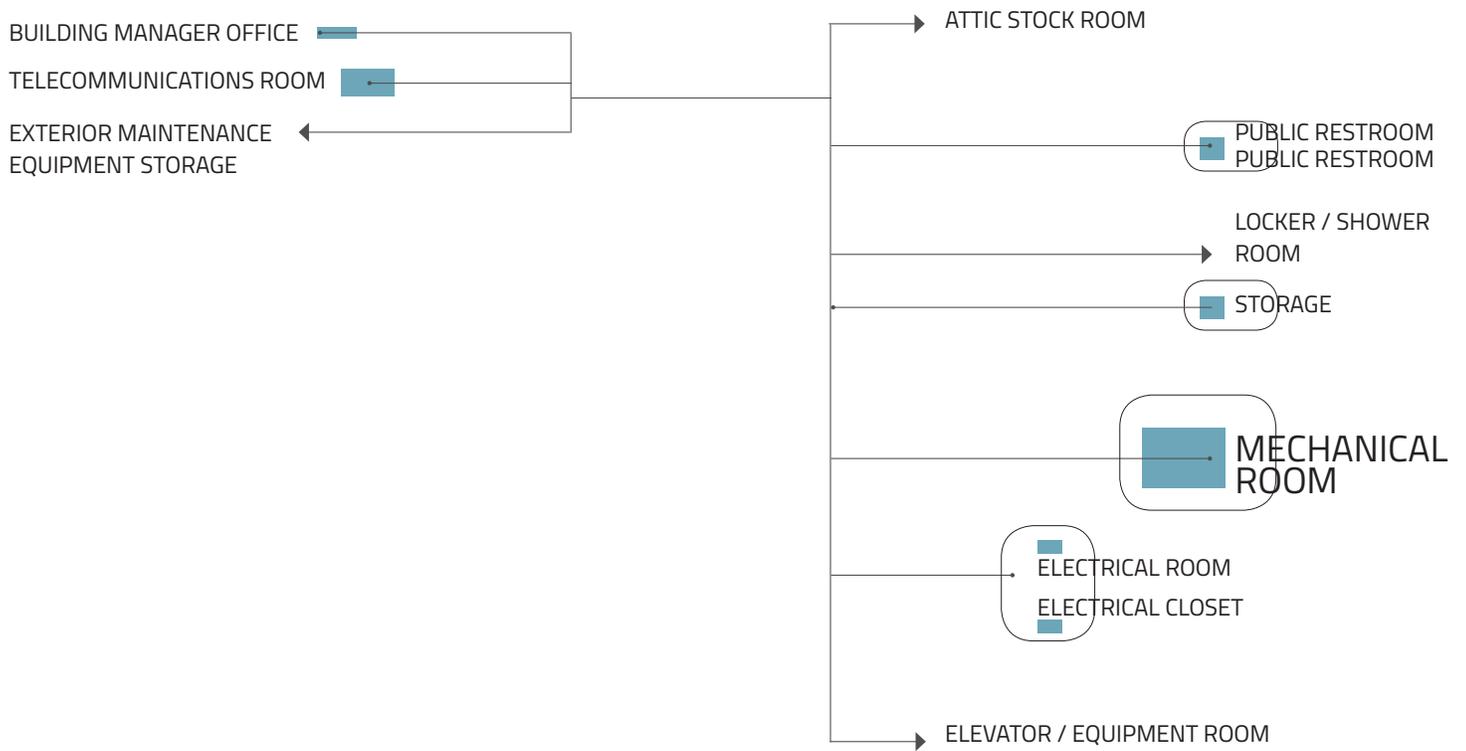
Accent Lighting: None required.

Foot Candles: 20

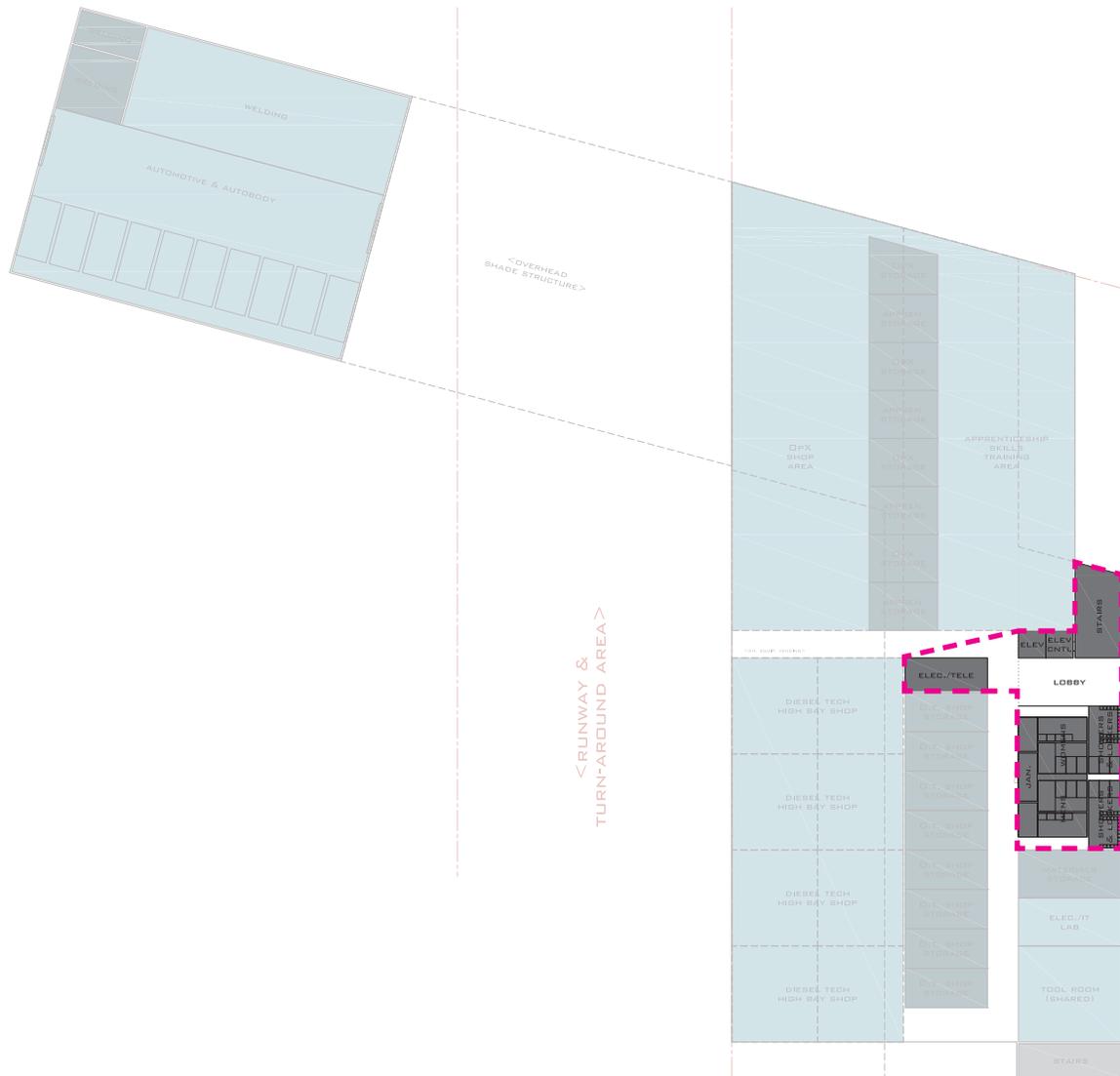
Controls: Vacancy Sensor.



Building Support - West Wing



<< Programming Requirements Building Support - West Wing



BUILDING SUPPORT - WEST WING

To the extent possible, building support spaces should be conveniently and efficiently located without limiting opportunities for higher priority program spaces.

Level 01

Space Requirements

SPACE SUMMARY:

Type of Space: Locker room.**Number Required:** 1 per gender**Total Number:** 2

Occupants:

Area: 261 SF**Primary Function:** Building support space.

RELATIONSHIPS:

Location: Level 3**Adjacencies:** Restroom. Exercise room.**Separation:** Separation between stalls and genders.**Architectural Requirements****DESIGN/AESTHETIC:**
None required.

FINISHES:

Floor: Porcelain tile, slope to floor drain.**Walls:** Ceramic tile.**Ceiling:** Painted gypsum board.**Specialty Finishes:** None required.**Sound:** Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: None required.**Glazing:** None required.**Natural Light:** None required.

CASEWORK/FIXED EQUIPMENT:

-Lockers, benches, shower stalls.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

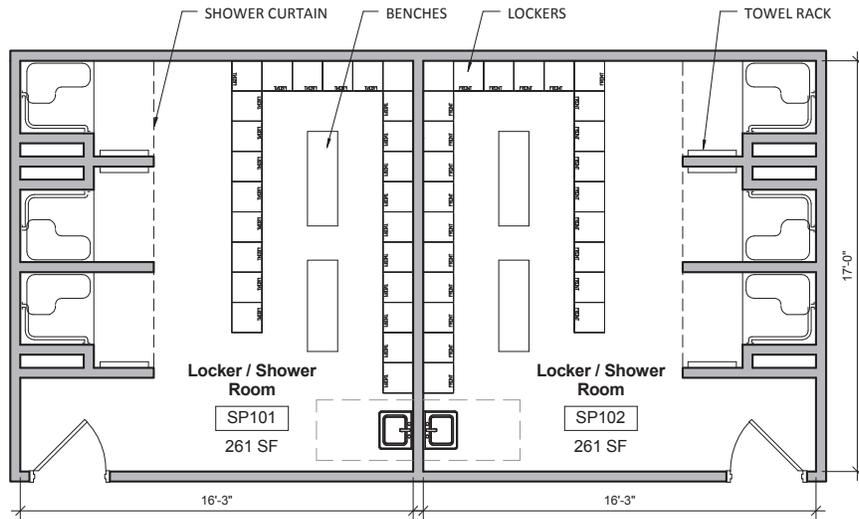
Ventilation: 1 CFM/sq. ft. 100% Exhaust.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 40 (NC/RC)**Special Systems:** 5 min. air exchange exhaust.**Plumbing:** Wall hung lavatory; showers; floor drains; water, waste, and venting;

ELECTRICAL:

Power: 1 GFCI duplex outlet per wall.**Phone/Data:** None required.**Video:** None required.**Audio:** None required.

LIGHTING:

Fixture Type: T-8 or LED and/or downlights.**Accent Lighting:** Required at mirrors.**Foot Candles:** 30**Controls:** Occupancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space: Restroom**Number Required:** 1 per gender**Total Number:** 2**Occupants:****Area:** 256 SF**Primary Function:** Building support space.

RELATIONSHIPS:

Location: Level 1**Adjacencies:** None Required.**Separation:** Separation between stalls and genders.**Architectural Requirements****DESIGN/AESTHETIC:**
None required.

FINISHES:

Floor: Porcelain tile, slope to floor drain.**Walls:** Ceramic tile.**Ceiling:** Painted gypsum board.**Specialty Finishes:** None required.**Sound:** Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:

DOORS:

Type: Solid core wood with clear finish.**Frame:** Painted aluminum.**Special:** Sound isolation.**Architectural Requirements**

WINDOWS:

Type: None required.**Glazing:** None required.**Natural Light:** None required.

CASEWORK/FIXED EQUIPMENT:

-Water closet; urinal; lavatory; toilet partition; urinal screen; mirror; grab bars; dispensers; waste receptacles.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-None required.

Technical Requirements

MECHANICAL:

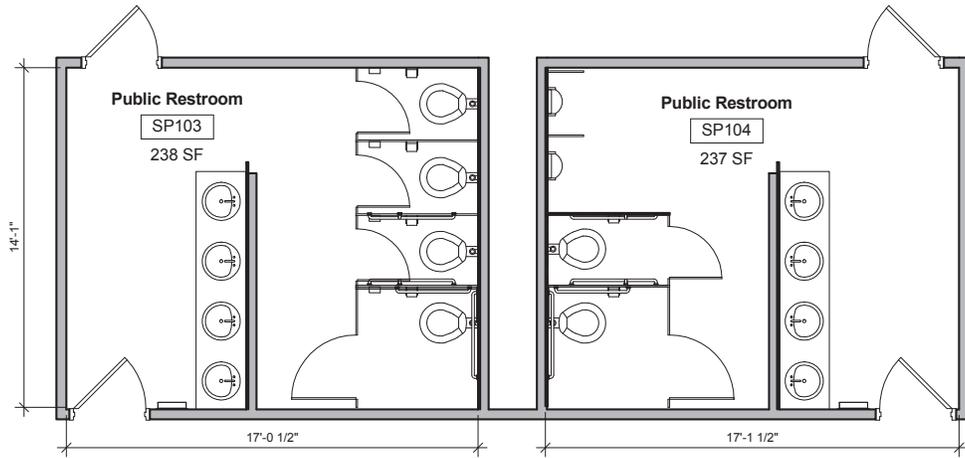
Ventilation: 1 CFM/sq. ft. 100% Exhaust.**Summer Design Temp:** 72 F**Winter Design Temp:** 72 F**Controls:** Individual direct digital controls.**Sound Criteria:** 40 (NC/RC)**Special Systems:** 5 min. air exchange exhaust.**Plumbing:** Wall hung flush valve water closet and urinals; wall hung lavatory; shower; floor drain; water, waste, and venting;

ELECTRICAL:

Power: 1 GFCI duplex outlet per wall.**Phone/Data:** None required.**Video:** None required.**Audio:** None required.

LIGHTING:

Fixture Type: T-8 or LED and/or downlights.**Accent Lighting:** Required at mirrors.**Foot Candles:** 30**Controls:** Occupancy sensor.



Space Requirements

SPACE SUMMARY:

Type of Space:	Telecommunications/electrical room.
Number Required:	1
Total Number:	1
Occupants:	0
Area:	240 SF
Primary Function:	Provide central distribution for building telecommunications and data systems.
RELATIONSHIPS:	
Location:	Level 1
Adjacencies:	Centrally located
Separation:	Quiet areas; Main telecommunications room and closets; high traffic public areas.

Architectural Requirements

DESIGN/AESTHETIC:
None required.

FINISHES:

Floor:	Sealed concrete.
Walls:	Painted gypsum board.
Ceiling:	Suspended 2'x4' ACT.
Specialty Finishes:	None required.
Sound:	Sound proof insulated walls.

CEILING HEIGHT:

Above Finish Floor (AFF): 9'-0"

PRIVACY/SECURITY:
None required.

DOORS:

Type:	Solid core wood with clear finish.
Frame:	Painted aluminum with glazed sidelight.
Special:	Sound isolation.

Architectural Requirements

WINDOWS:
Type: None required.

Glazing: None required.

Natural Light: None required.

CASEWORK/FIXED EQUIPMENT:

-None required.

MOVEABLE FURNISHINGS:

-None required.

EQUIPMENT:

-See Electrical Design Criteria in the Building Requirements Section of this document for Equipment list.

Technical Requirements

MECHANICAL:

Ventilation: 5 CFM/person + 0.06 CFM/sq. ft.

Summer Design Temp: 70 F

Winter Design Temp: 70 F

Controls: Individual direct digital controls.

Sound Criteria: 30 (NC/RC)

Special Systems: 5 min. air exchange exhaust.

Plumbing: None required.

ELECTRICAL:

Power: 1 duplex outlet every 10'-0", min. 2 per wall. Dedicated duplex receptacle per data rack tied into emergency power system.

Data: Data head end equipment.

Phone: 1 device minimum; D-mark for utility.

Video: None required.

Audio: None required.

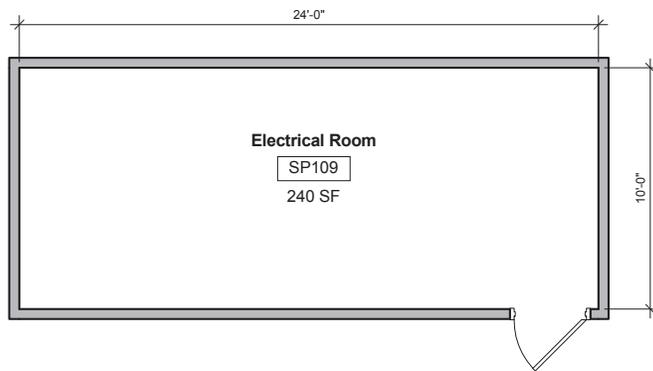
LIGHTING:

Fixture Type: T-8 or LED Lay-in or striplight.

Accent Lighting: None required.

Foot Candles: 30

Controls: Manual Switch.



<< Building Cost
Project Cost Summary

PROJECT ESTIMATE		CONSTRUCTION CONTROL CORPORATION			7/15/2014
PROJECT NAME.....DIXIE APPLIED TECHNOLOGY CENTER OPT. C		PROJECT TOTALS			
LOCATION.....ST GEORGE, UT		TOTAL BUILDING AREA 177,701 SF			
ARCHITECT.....METHOD STUDIOS		STAGE OF DESIGN.....PROGRAMMING			
CSI #	DESCRIPTION	EAST WING	WEST WING	SITE WORK	TOTAL
BUILDING COST SUMMARY					
02	SITework & DEMOLITION	\$ 426,782	\$ 324,452	\$ 2,677,829	\$ 3,429,062
03	CONCRETE	\$ 816,532	\$ 517,268	\$ -	\$ 1,333,800
04	MASONRY	\$ 1,206,419	\$ 847,353	\$ -	\$ 2,053,771
05	METALS	\$ 2,845,810	\$ 1,146,531	\$ -	\$ 3,992,341
06	WOODS & PLASTICS	\$ 805,236	\$ 182,695	\$ -	\$ 987,931
07	THERMAL & MOISTURE PROTECTION	\$ 1,286,851	\$ 891,152	\$ -	\$ 2,178,003
08	DOORS & WINDOWS	\$ 1,102,620	\$ 447,262	\$ -	\$ 1,549,881
09	FINISHES	\$ 2,711,826	\$ 1,082,038	\$ -	\$ 3,793,864
10	SPECIALTIES	\$ 243,487	\$ 83,323	\$ -	\$ 326,810
11	EQUIPMENT	\$ 706,026	\$ 173,407	\$ -	\$ 879,433
12	FURNISHINGS	\$ 84,884	\$ 31,491	\$ -	\$ 116,374
14	CONVEYING SYSTEMS	\$ 168,000	\$ 57,750	\$ -	\$ 225,750
15	MECHANICAL	\$ 4,617,030	\$ 2,164,647	\$ -	\$ 6,781,677
16	ELECTRICAL	\$ 3,571,138	\$ 1,703,502	\$ 133,784	\$ 5,408,424
SUBTOTAL		\$ 20,592,638	\$ 9,652,872	\$ 2,811,612	\$ 33,057,122
GENERAL CONDITIONS		\$ 1,235,558	\$ 579,172	\$ 168,697	\$ 1,983,427
OVERHEAD & PROFIT		\$ 823,706	\$ 386,115	\$ 112,464	\$ 1,322,285
DESIGN CONTINGENCY		\$ 2,471,117	\$ 1,158,345	\$ 337,393	\$ 3,966,855
TOTAL CONSTRUCTION COST		\$ 25,123,018	\$ 11,776,504	\$ 3,430,167	\$ 40,329,689
ESCALATION HAS NOT BEEN FACTORED INTO THE COSTS OF THIS ESTIMATE.					
ESTIMATE IS FOR CONSTRUCTION COSTS ONLY, SOFT COSTS ARE NOT INCLUDED.					

COST SUMMARY

The Project Estimate of construction costs included on the following pages has been prepared to reflect the anticipated cost of the proposed DXATC New Permanent Campus Building (both the Professional Trades – East Wing and the Industrial Trades – West Wing) and the related site development. The estimate is based on the programmatic information included in this document, including the State of Utah’s High-Performance Building Standards as currently documented. Unit rates have been obtained from historical records, along with discussions with contractors. The unit rates provided include labor, material and equipment that reflect current bid costs in the St. George, Utah area. All subcontractor unit rates include the individual subcontractors’ overhead and profit, unless otherwise stated. This estimate is intended for planning purposes and should be updated during subsequent phases of design. The estimate is based on 2014 construction dollars. Note that inflation is not included. Similarly, soft costs (including design fees, furniture and equipment, IT equipment, commissioning, etc) are excluded.

Building Cost >>
Project Cost Summary

The following assumptions have been made: Construction will take place during normal working hours, The General Contractor will have sufficient / temporary site staging and site storage within or adjacent to the vicinity of the construction.

The following items are excluded for the Project Estimate: Land Acquisition costs, Financing charges and expenses, Site-related environmental abatement measures (not anticipated), Project phasing costs, limited/restricted working hours, etc.

The following items may change the estimated costs, and are not limited to: Unforeseen or hidden site utility conditions and capacities, Modifications to the scope of work represented by this Project Estimate. Additionally, it should be noted that the Programming Team acknowledges that at the publication time of this document the current construction bidding climate is volatile above and beyond typical seasonal fluctuation in costs. While the current conditions are believed to be a temporary spike, which will not adversely impact the overall expectations on annual inflation that the State of Utah accounts for in project funding, up-to-date costs of labor, materials, equipment, contractor’s methods, and the competitive bidding market should be taken into consideration at each subsequent design phase.

PROJECT ESTIMATE		CONSTRUCTION CONTROL CORPORATION		7/15/2014
PROJECT NAME.....DIXIE APPLIED TECHNOLOGY CENTER OPT. C EAST WING				
LOCATION.....ST GEORGE, UT				
ARCHITECT.....METHOD STUDIOS		Project Size	118,919	SF
STAGE OF DESIGN.....PROGRAMMING				
CSI #	DESCRIPTION	UNIT QTY	UNIT COST	
BUILDING COST SUMMARY				
02	SITWORK & DEMOLITION		\$ 3.59	\$ 426,782
03	CONCRETE		\$ 6.87	\$ 816,532
04	MASONRY		\$ 10.14	\$ 1,206,419
05	METALS		\$ 23.93	\$ 2,845,810
06	WOODS & PLASTICS		\$ 6.77	\$ 805,236
07	THERMAL & MOISTURE PROTECTION		\$ 10.82	\$ 1,286,851
08	DOORS & WINDOWS		\$ 9.27	\$ 1,102,620
09	FINISHES		\$ 22.80	\$ 2,711,826
10	SPECIALTIES		\$ 2.05	\$ 243,487
11	EQUIPMENT		\$ 5.94	\$ 706,026
12	FURNISHINGS		\$ 0.71	\$ 84,884
14	CONVEYING SYSTEMS		\$ 1.41	\$ 168,000
15	MECHANICAL		\$ 38.83	\$ 4,617,030
16	ELECTRICAL		\$ 30.03	\$ 3,571,138
SUBTOTAL			\$ 173.17	20,592,638
	GENERAL CONDITIONS	6%	\$ 10.39	1,235,558
	OVERHEAD & PROFIT	4%	\$ 6.93	823,706
	DESIGN CONTINGENCY	12%	\$ 20.78	2,471,117
TOTAL CONSTRUCTION COST			\$ 211.26	\$ 25,123,018
ESCALATION HAS NOT BEEN FACTORED INTO THE COSTS OF THIS ESTIMATE.				
ESTIMATE IS FOR CONSTRUCTION COSTS ONLY, SOFT COSTS ARE NOT INCLUDED.				

<< Building Cost
Project Cost Summary

PROJECT ESTIMATE		CONSTRUCTION CONTROL CORPORATION		7/15/2014	
PROJECT NAME.....DIXIE APPLIED TECHNOLOGY CENTER OPT. C EAST WING					
LOCATION.....ST GEORGE, UT					
ARCHITECT.....METHOD STUDIOS Project Size 118,919 SF					
STAGE OF DESIGN.....PROGRAMMING					
CSI #	DESCRIPTION	UNIT QTY	UNIT COST		
02	SITework & DEMOLITION				
	Earthwork				
	Building Excavation	12213 CY	\$ 5.25	\$	64,120
	Backfill and Compaction w/ imported fills	12213 CY	\$ 20.66	\$	252,376
	Building Grading	54960 SF	\$ 0.41	\$	22,506
	Gravel under Slab	2182 TNS	\$ 29.40	\$	64,154
	Subtotal for Earthwork			\$	403,157
	Site Utilities				
	Sewer Service	1 LS	\$ 5,250.00	\$	5,250
	Water Service	1 LS	\$ 5,250.00	\$	5,250
	Storm Drainage	1 LS	\$ 5,250.00	\$	5,250
	Electrical Feeder	1 LS	\$ 7,875.00	\$	7,875
	Subtotal for Site Utilities			\$	23,625
	TOTAL SITework & DEMOLITION			\$	426,782
03	CONCRETE				
	Footings Continuous	344 CY	\$ 320.25	\$	110,046
	Spot Footings	344 CY	\$ 330.75	\$	113,655
	Foundation Wall	6958 SF	\$ 20.66	\$	143,789
	Slab on Grade	54960 SF	\$ 3.83	\$	210,634
	Topping Slab	63959 SF	\$ 3.73	\$	238,407
	TOTAL CONCRETE			\$	816,532
04	MASONRY				
	CMU at Stair Enclosure	5760 SF	\$ 16.04	\$	92,413
	Exterior Wall	44207 SF	\$ 25.20	\$	1,114,005
	TOTAL MASONRY			\$	1,206,419
05	METALS				
	Miscellaneous Steel	118919 SF	\$ 0.40	\$	47,449
	Metal Floor Deck	63959 SF	\$ 2.05	\$	130,956
	Metal Roof Deck	56160 SF	\$ 2.15	\$	120,884
	Floor Structure 11#/SF	703549 LB	\$ 1.94	\$	1,366,644
	Roof Structure- 7#/SF	393120 LB	\$ 1.94	\$	763,636
	Decorative Stair	644 SF	\$ 134.40	\$	86,554
	Decorative Railing	695 LF	\$ 315.00	\$	218,925
	Concrete Filled Stair Pans	532 SF	\$ 61.95	\$	32,957
	Free Standing Railing	390 LF	\$ 131.25	\$	51,188
	Wall Mounted Handrail	390 LF	\$ 68.25	\$	26,618
	TOTAL METALS			\$	2,845,810
06	WOOD & PLASTICS				
	Carpentry:				
	Wood Plates & Blocking	118919 SF	\$ 0.33	\$	38,709
	Subtotal for Carpentry			\$	38,709
	Millwork				
	Conference/ Boardroom Base Cabinet	78 LF	\$ 278.25	\$	21,704
	Conference/ Boardroom Wall Hung Cabinet	78 LF	\$ 236.25	\$	18,428
	Base Cabinet w/ Plam top	928 LF	\$ 225.75	\$	209,496
	Wall Hung Cabinet	828 LF	\$ 194.25	\$	160,839
	Storage Shelving	200 LF	\$ 61.95	\$	12,390
	Lab Base Cabinet	273 LF	\$ 278.25	\$	75,962
	Lab Wallhung Cabinet	248 LF	\$ 173.25	\$	42,966
	Exam Base Cabinet w/ Plam top	168 LF	\$ 236.25	\$	39,690

Building Cost >>
Project Cost Summary

PROJECT ESTIMATE		CONSTRUCTION CONTROL CORPORATION		7/15/2014
PROJECT NAME.....DIXIE APPLIED TECHNOLOGY CENTER OPT. C EAST WING				
LOCATION.....ST GEORGE, UT				
ARCHITECT.....METHOD STUDIOS		Project Size	118,919	SF
STAGE OF DESIGN.....PROGRAMMING				
CSI #	DESCRIPTION	UNIT QTY	UNIT COST	
	Exam Wall Hung Cabinet	142 LF	\$ 204.75	\$ 29,075
	Kitchen Base Cabinet w/ Plam top	40 LF	\$ 488.25	\$ 19,530
	Kitchen Wall Hung Cabinet	20 LF	\$ 278.25	\$ 5,565
	Cubicles	65 EA	\$ 299.25	\$ 19,451
	Bookshelves	252 LF	\$ 102.90	\$ 25,931
	Countertops	188 LF	\$ 131.25	\$ 24,675
	Vanity	80 LF	\$ 173.25	\$ 13,860
	Mailboxes	1 Allow	\$ 15,750.00	\$ 15,750
	Miscellaneous Millwork	118919 SF	\$ 0.26	\$ 31,216
	Subtotal for Millwork			\$ 766,527
	TOTAL WOOD & PLASTICS			\$ 805,236
07	<u>THERMAL & MOISTURE PROTECTION</u>			
	Batt Insulation at exterior wall	49118 SF	\$ 0.76	\$ 37,134
	3" Rigid at Building Exterior	49118 SF	\$ 3.10	\$ 152,144
	Rigid Roof Insulation	56160 SF	\$ 3.20	\$ 179,852
	Sound Batt	231892 SF	\$ 0.50	\$ 116,874
	Wall Sheathing	49118 SF	\$ 1.73	\$ 85,098
	Vapor Barrier	49118 SF	\$ 2.89	\$ 141,829
	Foundation Waterproofing	6958 SF	\$ 3.78	\$ 26,303
	Metal Wall Cap	1626 LF	\$ 10.16	\$ 16,527
	Metal Flashings	2500 SF	\$ 6.14	\$ 15,356
	Single Ply membrane	56160 SF	\$ 3.31	\$ 185,749
	Soffit	1200 SF	\$ 31.50	\$ 37,800
	Building Fireproofing	118919 SF	\$ 2.05	\$ 243,487
	Fire Stopping/ Caulking	118919 SF	\$ 0.19	\$ 22,476
	Caulking & Sealants	118919 SF	\$ 0.22	\$ 26,222
	TOTAL THERMAL & MOISTURE PROTECTION			\$ 1,286,851
08	<u>DOORS & WINDOWS</u>			
	Doors	118919 SF	\$ 2.29	\$ 272,206
	Exterior Glazing Aluminum (35% of Exterior)	17191 SF	\$ 40.43	\$ 694,964
	Shading Devices	1200 SF	\$ 73.50	\$ 88,200
	Interior Glazing	1500 SF	\$ 31.50	\$ 47,250
	TOTAL DOORS & WINDOWS			\$ 1,102,620
09	<u>FINISHES</u>			
	Exterior Metal Stud Framing	49118 SF	\$ 4.20	\$ 206,297
	Interior Metal Stud Partitions	231892 SF	\$ 2.15	\$ 499,148
	5/8" Gypsum board	512903 SF	\$ 1.45	\$ 743,196
	Operable Wall	1488 SF	\$ 54.60	\$ 81,245
	Moveable Partition Bulkhead	124 LF	\$ 56.70	\$ 7,031
	Lab Area Ceiling	3740 SF	\$ 3.94	\$ 14,726
	Locker/ Restroom Ceiling	2000 SF	\$ 3.78	\$ 7,560
	Audorium Ceiling	6200 SF	\$ 13.28	\$ 82,352
	Classroom Ceiling	22969 SF	\$ 3.41	\$ 78,382
	Hospital Training Ceiling	1920 SF	\$ 3.94	\$ 7,560
	Technology/ Shop Area Ceilings	4320 SF	\$ 3.10	\$ 13,381
	Culinary Arts/ Kitchen/ Cafeterial Ceiling	5630 SF	\$ 3.94	\$ 22,168
	Office/Admin Area Ceiling	31673 SF	\$ 2.36	\$ 74,827
	Paint Exposed Structure	15077 SF	\$ 1.98	\$ 29,920
	Circulation area Ceiling	25390 SF	\$ 4.57	\$ 115,969
	Circulation area flooring	25390 SF	\$ 3.50	\$ 88,776
	Lab Area Flooring	3740 SF	\$ 4.20	\$ 15,708
	Locker/ Restroom Flooring	2000 SF	\$ 10.00	\$ 20,000
	Classroom Flooring	22969 SF	\$ 3.50	\$ 80,311
	Audorium Flooring	6200 SF	\$ 5.25	\$ 32,550
	Hospital Training Flooring	1920 SF	\$ 6.30	\$ 12,096

<< Building Cost
Project Cost Summary

PROJECT ESTIMATE		CONSTRUCTION CONTROL CORPORATION		7/15/2014	
PROJECT NAME.....DIXIE APPLIED TECHNOLOGY CENTER OPT. C EAST WING					
LOCATION.....ST GEORGE, UT					
ARCHITECT.....METHOD STUDIOS Project Size 118,919 SF					
STAGE OF DESIGN.....PROGRAMMING					
CSI #	DESCRIPTION	UNIT QTY	UNIT COST		
	Technology/ Shop Area Flooring	4320 SF	\$ 4.50	\$	19,440
	Culinary Arts/ Kitchen/ Cafeteria Flooring	1260 SF	\$ 8.40	\$	10,584
	Office Area Flooring	31673 SF	\$ 3.50	\$	110,745
	Paint Gypsum Board Walls	512903 SF	\$ 0.48	\$	247,732
	Sealed concrete	15077 SF	\$ 0.62	\$	9,340
	Wall Coverings	512903 SF	\$ 0.16	\$	80,782
	TOTAL FINISHES			\$	2,711,826
10	SPECIALTIES	118919 SF	\$ 2.05	\$	243,487
11	EQUIPMENT				
	Kitchen Equipment	2000 SF	\$ 204.75	\$	409,500
	Health Science Equipment	1 LS	\$ 78,750.00	\$	78,750
	Exercise Equipment	1 LS	\$ 78,750.00	\$	78,750
	Fixed Audience Seats	250 EA	\$ 281.40	\$	70,350
	Other Building Equipment	118919 SF	\$ 0.58	\$	68,676
	TOTAL EQUIPMENT			\$	706,026
12	FURNISHINGS				
	Walk-Off Mats	120 SF	\$ 30.45	\$	3,654
	Blinds	17191 SF	\$ 4.73	\$	81,230
	TOTAL EQUIPMENT			\$	84,884
14	CONVEYING SYSTEMS				
	Elevator 3 stop	2 EA	\$ 84,000.00	\$	168,000
	TOTAL CONVEYING SYSTEMS			\$	168,000
15	MECHANICAL				
	HVAC:	118919 SF	\$ 32.00	\$	3,805,408
	Fire Protection:	118919 SF	\$ 2.99	\$	355,865
	Plumbing	118919 SF	\$ 3.83	\$	455,757
	TOTAL MECHANICAL			\$	4,617,030
16	ELECTRICAL				
	Service & Distribution:	118919 SF	\$ 8.72	\$	1,036,379
	Power:	118919 SF	\$ 3.31	\$	393,325
	Lighting:	118919 SF	\$ 8.40	\$	998,920
	Telecommunication System:	118919 SF	\$ 3.83	\$	455,757
	Fire/Smoke System:	118919 SF	\$ 2.36	\$	280,946
	Special Systems:	118919 SF	\$ 3.41	\$	405,811
	TOTAL ELECTRICAL			\$	3,571,138

Building Cost >>
Project Cost Summary

PROJECT ESTIMATE		CONSTRUCTION CONTROL CORPORATION		7/15/2014
PROJECT NAME.....DIXIE APPLIED TECHNOLOGY CENTER OPT. C WEST WING				
LOCATION.....ST GEORGE, UT				
ARCHITECT.....METHOD STUDIOS		Project Size	58,782	SF
STAGE OF DESIGN.....PROGRAMMING				
CSI #	DESCRIPTION	UNIT QTY	UNIT COST	
BUILDING COST SUMMARY				
02	SITWORK & DEMOLITION		\$ 5.52	\$ 324,452
03	CONCRETE		\$ 8.80	\$ 517,268
04	MASONRY		\$ 14.42	\$ 847,353
05	METALS		\$ 19.50	\$ 1,146,531
06	WOODS & PLASTICS		\$ 3.11	\$ 182,695
07	THERMAL & MOISTURE PROTECTION		\$ 15.16	\$ 891,152
08	DOORS & WINDOWS		\$ 7.61	\$ 447,262
09	FINISHES		\$ 18.41	\$ 1,082,038
10	SPECIALTIES		\$ 1.42	\$ 83,323
11	EQUIPMENT		\$ 2.95	\$ 173,407
12	FURNISHINGS		\$ 0.54	\$ 31,491
14	CONVEYING SYSTEMS		\$ 0.98	\$ 57,750
15	MECHANICAL		\$ 36.83	\$ 2,164,647
16	ELECTRICAL		\$ 28.98	\$ 1,703,502
SUBTOTAL			\$ 164.21	9,652,872
	GENERAL CONDITIONS	6%	\$ 9.85	579,172
	OVERHEAD & PROFIT	4%	\$ 6.57	386,115
	DESIGN CONTINGENCY	12%	\$ 19.71	1,158,345
TOTAL CONSTRUCTION COST			\$ 200.34	\$ 11,776,504
ESCALATION HAS NOT BEEN FACTORED INTO THE COSTS OF THIS ESTIMATE.				
ESTIMATE IS FOR CONSTRUCTION COSTS ONLY, SOFT COSTS ARE NOT INCLUDED.				

<< Building Cost Project Cost Summary

PROJECT ESTIMATE		CONSTRUCTION CONTROL CORPORATION		7/15/2014
PROJECT NAME.....DIXIE APPLIED TECHNOLOGY CENTER OPT. C WEST WING				
LOCATION.....ST GEORGE, UT				
ARCHITECT.....METHOD STUDIOS		Project Size	58,782	SF
STAGE OF DESIGN.....PROGRAMMING				
CSI #	DESCRIPTION	UNIT QTY	UNIT COST	
02	<u>SITework & DEMOLITION</u>			
	Earthwork			
	Building Excavation	9113 CY	\$ 5.25	\$ 47,845
	Backfill and Compaction w/ imported fills	9113 CY	\$ 20.66	\$ 188,318
	Building Grading	41010 SF	\$ 0.41	\$ 16,794
	Gravel under Slab	1628 TNS	\$ 29.40	\$ 47,871
	Subtotal for Earthwork			\$ 300,827
	Site Utilities			
	Sewer Service	1 LS	\$ 5,250.00	\$ 5,250
	Water Service	1 LS	\$ 5,250.00	\$ 5,250
	Storm Drainage	1 LS	\$ 5,250.00	\$ 5,250
	Electrical Feeder	1 LS	\$ 7,875.00	\$ 7,875
	Subtotal for Site Utilities			\$ 23,625
	TOTAL SITework & DEMOLITION			\$ 324,452
03	<u>CONCRETE</u>			
	Footings Continuous	275 CY	\$ 320.25	\$ 87,995
	Spot Footings	275 CY	\$ 330.75	\$ 90,880
	Foundation Wall	5564 SF	\$ 20.66	\$ 114,977
	Slab on Grade	41010 SF	\$ 3.83	\$ 157,171
	Topping Slab	17772 SF	\$ 3.73	\$ 66,245
	TOTAL CONCRETE			\$ 517,268
04	<u>MASONRY</u>			
	CMU at Stair Enclosure	1920 SF	\$ 16.04	\$ 30,804
	Exterior Wall	35348 SF	\$ 23.10	\$ 816,548
	TOTAL MASONRY			\$ 847,353
05	<u>METALS</u>			
	Miscellaneous Steel	58782 SF	\$ 0.40	\$ 23,454
	Metal Floor Deck	17772 SF	\$ 2.05	\$ 36,388
	Metal Roof Deck	42210 SF	\$ 2.15	\$ 90,857
	Floor Structure 11#/SF	195492 LB	\$ 1.94	\$ 379,743
	Roof Structure- 7#/SF	295470 LB	\$ 1.94	\$ 573,950
	Concrete Filled Stair Pans	268 SF	\$ 61.95	\$ 16,603
	Free Standing Railing	128 LF	\$ 131.25	\$ 16,800
	Wall Mounted Handrail	128 LF	\$ 68.25	\$ 8,736
	TOTAL METALS			\$ 1,146,531
06	<u>WOOD & PLASTICS</u>			
	Carpentry:			
	Wood Plates & Blocking	58782 SF	\$ 0.33	\$ 19,134
	Subtotal for Carpentry			\$ 19,134
	Millwork	58782 SF	\$ 2.78	\$ 163,561
	TOTAL WOOD & PLASTICS			\$ 182,695
07	<u>THERMAL & MOISTURE PROTECTION</u>			
	Batt Insulation at exterior wall	39276 SF	\$ 0.76	\$ 29,693
	3" Rigid at Building Exterior	39276 SF	\$ 3.10	\$ 121,657
	Rigid Roof Insulation	42210 SF	\$ 3.20	\$ 135,178
	Sound Batt	96990 SF	\$ 0.50	\$ 48,884
	Wall Sheathing	39276 SF	\$ 1.73	\$ 68,046
	Vapor Barrier	39276 SF	\$ 2.89	\$ 113,409

Building Cost >>
Project Cost Summary

PROJECT ESTIMATE		CONSTRUCTION CONTROL CORPORATION		7/15/2014
PROJECT NAME.....DIXIE APPLIED TECHNOLOGY CENTER OPT. C WEST WING				
LOCATION.....ST GEORGE, UT				
ARCHITECT.....METHOD STUDIOS		Project Size	58,782	SF
STAGE OF DESIGN.....PROGRAMMING				
CSI #	DESCRIPTION	UNIT QTY	UNIT COST	
	Foundation Waterproofing	5564 SF	\$ 3.78	\$ 21,032
	Metal Wall Cap	1580 SF	\$ 10.16	\$ 16,059
	Metal Flashings	2500 SF	\$ 6.14	\$ 15,356
	Single Ply membrane	42210 SF	\$ 3.31	\$ 139,610
	Soffit	1200 SF	\$ 31.50	\$ 37,800
	Building Fireproofing	58782 SF	\$ 2.05	\$ 120,356
	Fire Stopping/ Caulking	58782 SF	\$ 0.19	\$ 11,110
	Caulking & Sealants	58782 SF	\$ 0.22	\$ 12,962
	TOTAL THERMAL & MOISTURE PROTECTION			\$ 891,152
08	<u>DOORS & WINDOWS</u>			
	Doors	58782 SF	\$ 2.29	\$ 134,552
	Exterior Glazing Aluminum (15% of Exterior)	5891 SF	\$ 40.43	\$ 238,160
	Shading Devices	800 SF	\$ 73.50	\$ 58,800
	Interior Glazing	500 SF	\$ 31.50	\$ 15,750
	TOTAL DOORS & WINDOWS			\$ 447,262
09	<u>FINISHES</u>			
	Exterior Metal Stud Framing	39276 SF	\$ 4.20	\$ 164,959
	Interior Metal Stud Partitions	96990 SF	\$ 2.15	\$ 208,772
	5/8" Gypsum board	233257 SF	\$ 1.45	\$ 337,989
	Technology/ Shop Area Ceilings	42950 SF	\$ 1.98	\$ 85,234
	Locker/ Restroom Ceiling	500 SF	\$ 3.78	\$ 1,890
	Paint Exposed Structure	6164 SF	\$ 1.98	\$ 12,232
	Circulation area Ceiling	9168 SF	\$ 4.57	\$ 41,875
	Circulation area flooring	9168 SF	\$ 3.50	\$ 32,056
	Technology/ Shop Area Flooring	42950 SF	\$ 0.93	\$ 40,137
	Locker/ Restroom Flooring	500 SF	\$ 7.35	\$ 3,675
	Sealed concrete	6164 SF	\$ 0.62	\$ 3,819
	Paint Gypsum Board Walls	233257 SF	\$ 0.48	\$ 112,663
	Wall Coverings	233257 SF	\$ 0.16	\$ 36,738
	TOTAL FINISHES			\$ 1,082,038
10	<u>SPECIALTIES</u>	58782 SF	\$ 1.42	\$ 83,323
11	<u>EQUIPMENT</u>			
	Building Equipment	58782 SF	\$ 2.95	\$ 173,407
	TOTAL EQUIPMENT			\$ 173,407
12	<u>FURNISHINGS</u>			
	Walk-Off Mats	120 SF	\$ 30.45	\$ 3,654
	Blinds	5891 SF	\$ 4.73	\$ 27,837
	TOTAL EQUIPMENT			\$ 31,491
14	<u>CONVEYING SYSTEMS</u>			
	Elevator 2 stop	1 EA	\$ 57,750.00	\$ 57,750
	TOTAL CONVEYING SYSTEMS			\$ 57,750
15	<u>MECHANICAL</u>			
	HVAC:	58782 SF	\$ 30.00	\$ 1,763,460
	Fire Protection:	58782 SF	\$ 2.99	\$ 175,905
	Plumbing	58782 SF	\$ 3.83	\$ 225,282
	TOTAL MECHANICAL			\$ 2,164,647
16	<u>ELECTRICAL</u>			

<< Building Cost
Project Cost Summary

PROJECT ESTIMATE		CONSTRUCTION CONTROL CORPORATION		7/15/2014
PROJECT NAME.....DIXIE APPLIED TECHNOLOGY CENTER OPT. C WEST WING				
LOCATION.....ST GEORGE, UT				
ARCHITECT.....METHOD STUDIOS Project Size 58,782 SF				
STAGE OF DESIGN.....PROGRAMMING				
CSI #	DESCRIPTION	UNIT QTY	UNIT COST	
	Service & Distribution:	58782 SF	\$ 8.72	\$ 512,285
	Power:	58782 SF	\$ 3.31	\$ 194,421
	Lighting:	58782 SF	\$ 7.35	\$ 432,048
	Telecommunication System:	58782 SF	\$ 3.83	\$ 225,282
	Fire/Smoke System:	58782 SF	\$ 2.36	\$ 138,872
	Special Systems:	58782 SF	\$ 3.41	\$ 200,594
	TOTAL ELECTRICAL			\$ 1,703,502

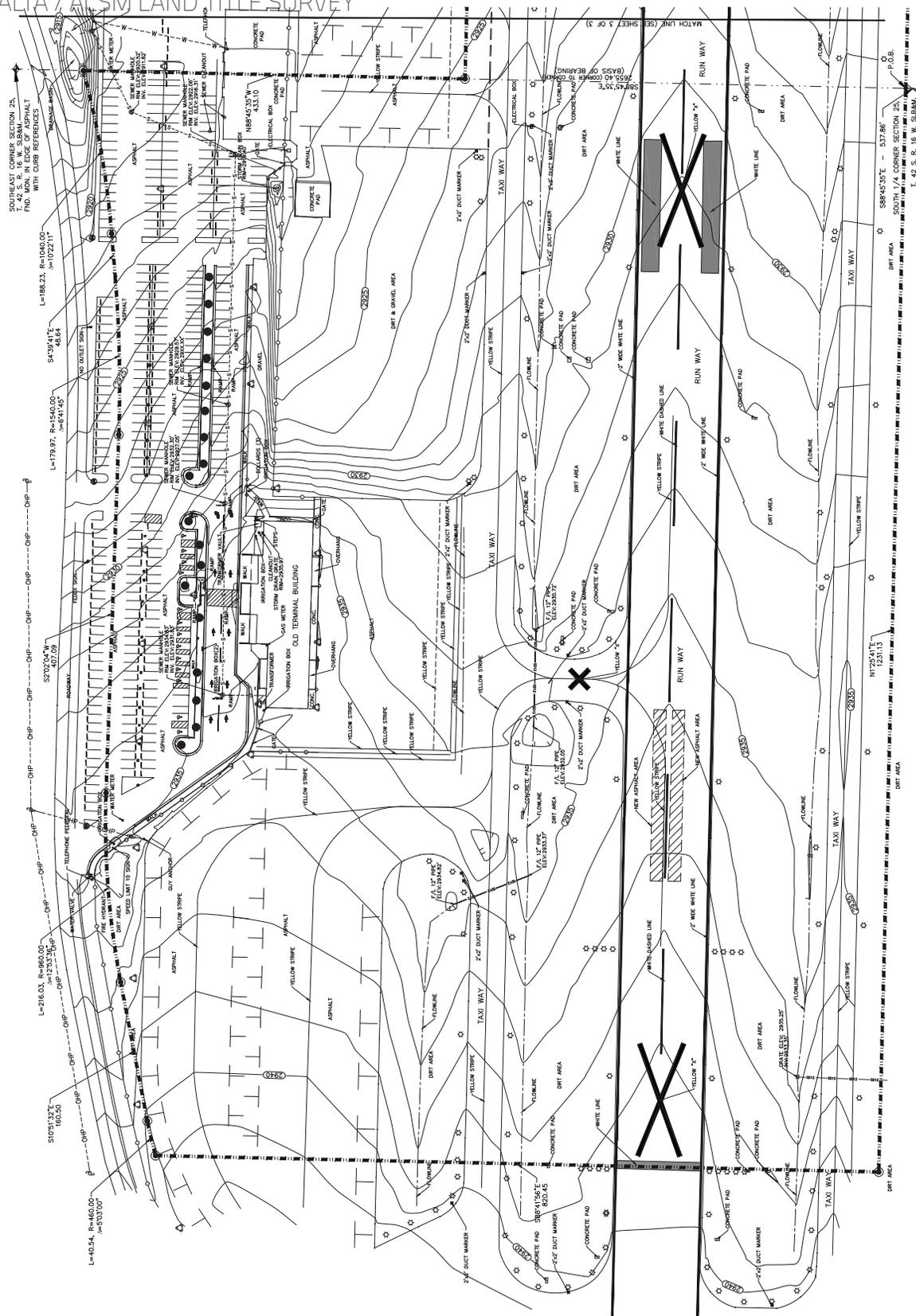
Building Cost >>
Project Cost Summary

PROJECT ESTIMATE		CONSTRUCTION CONTROL CORPORATION		7/15/2014
PROJECT NAME.....DIXIE APPLIED TECHNOLOGY CENTER OPT. B		SITE WORK		
LOCATION.....ST GEORGE, UT				
ARCHITECT.....METHOD STUDIOS		Project Size	196,020	SF
STAGE OF DESIGN.....PROGRAMMING				
CSI #	DESCRIPTION	UNIT QTY	UNIT COST	
BUILDING COST SUMMARY				
02	SITWORK & DEMOLITION		\$ 13.66	\$ 2,677,829
03	CONCRETE		\$ -	\$ -
04	MASONRY		\$ -	\$ -
05	METALS		\$ -	\$ -
06	WOODS & PLASTICS		\$ -	\$ -
07	THERMAL & MOISTURE PROTECTION		\$ -	\$ -
08	DOORS & WINDOWS		\$ -	\$ -
09	FINISHES		\$ -	\$ -
10	SPECIALTIES		\$ -	\$ -
11	EQUIPMENT		\$ -	\$ -
12	FURNISHINGS		\$ -	\$ -
14	CONVEYING SYSTEMS		\$ -	\$ -
15	MECHANICAL		\$ -	\$ -
16	ELECTRICAL		\$ 0.68	\$ 133,784
SUBTOTAL			\$ 14.34	2,811,612
	GENERAL CONDITIONS	6%	\$ 0.86	168,697
	OVERHEAD & PROFIT	4%	\$ 0.57	112,464
	DESIGN CONTINGENCY	12%	\$ 1.72	337,393
TOTAL CONSTRUCTION COST			\$ 17.50	\$ 3,430,167
<p>*ESCALATION HAS NOT BEEN FACTORED INTO THE COSTS OF THIS ESTIMATE.* **ESTIMATE IS FOR CONSTRUCTION COSTS ONLY, SOFT COSTS ARE NOT INCLUDED.**</p>				

<< Building Cost
Project Cost Summary

PROJECT ESTIMATE		CONSTRUCTION CONTROL CORPORATION		7/15/2014	
PROJECT NAME.....DIXIE APPLIED TECHNOLOGY CENTER OPT. B SITE WORK					
LOCATION.....ST GEORGE, UT					
ARCHITECT.....METHOD STUDIOS Project Size 196,020 SF					
STAGE OF DESIGN.....PROGRAMMING					
CSI #	DESCRIPTION	UNIT QTY	UNIT COST		
02	SITWORK & DEMOLITION				
	Demolition				
	Site Clearing	196020 SF	\$ 0.20	\$	39,106
	Subtotal for Demolition			\$	39,106
	Earthwork				
	Site Grading	196020 CY	\$ 0.33	\$	63,805
	Site Excavation	7260 CY	\$ 15.38	\$	111,677
	Subtotal for Earthwork			\$	175,481
	Site Utilities				
	Sewer Service	196020 SF	\$ 0.20	\$	39,106
	Water Service	196020 SF	\$ 0.58	\$	113,202
	Storm Drainage	196020 SF	\$ 0.32	\$	61,746
	Electrical Distribution	196020 SF	\$ 0.47	\$	92,619
	Subtotal for Site Utilities			\$	306,673
	Site Improvements	196020 SF	\$ 8.40	\$	1,646,568
	Sky Bridge	170 LF	\$ 3,000.00	\$	510,000
	TOTAL SITWORK & DEMOLITION			\$	2,677,829
16	ELECTRICAL				
	Site Lighting	196020 SF	\$ 0.68	\$	133,784
	TOTAL ELECTRICAL			\$	133,784

ALTA / ACSM LAND TITLE SURVEY



Soils Thermal Conductivity Report



FORMATION THERMAL CONDUCTIVITY TEST & DATA ANALYSIS

TEST LOCATION **Dixie Applied Technology College
Bore #2
St. George, UT**

TEST DATE July 7-9, 2014

ANALYSIS FOR Van Boerum & Frank Assoc., Inc.
1070 West 1600 South #104
St. George, UT 84770
Phone: (435) 674-4800
Fax: (435) 674-2708

TEST PERFORMED BY Van Boerum & Frank Assoc., Inc.

EXECUTIVE SUMMARY

A formation thermal conductivity test was performed on Bore #2 at the Dixie Applied Technology College site at 317 S. Donlee Dr. in St. George, Utah. The vertical bore was completed on June 24, 2014 by Earth First Drilling. Geothermal Resource Technologies' (GRTI) test unit was attached to the vertical bore on the afternoon of July 7, 2014.

This report provides an overview of the test procedures and analysis process, along with plots of the loop temperature and input heat rate data. The collected data was analyzed using the "line source" method and the following average formation thermal conductivity was determined.

Formation Thermal Conductivity = 1.36 Btu/hr-ft-°F

Due to the necessity of a thermal diffusivity value in the design calculation process, an estimate of the average thermal diffusivity was made for the encountered formation.

Formation Thermal Diffusivity ≈ 0.93 ft²/day

The undisturbed formation temperature for the tested bore was established from the initial loop temperature data collected at startup.

Undisturbed Formation Temperature ≈ 68.1-69.3°F

The formation thermal properties determined by this test do not directly translate into a loop length requirement (i.e. feet of bore per ton). These parameters, along with many others, are inputs to commercially available loop-field design software to determine the required loop length. Additional questions concerning the use of these results are discussed in the frequently asked question (FAQ) section at www.grti.com.

Soils Thermal Conductivity Report

TEST PROCEDURES

The American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) has published recommended procedures for performing formation thermal conductivity tests in the ASHRAE HVAC Applications Handbook, Geothermal Energy Chapter. The International Ground Source Heat Pump Association (IGSHPA) also lists test procedures in their Design and Installation Standards. GRTI's test procedures meet or exceed those recommended by ASHRAE and IGSHPA, with the specific procedures described below:

Grouting Procedure for Test Loops – To ensure against bridging and voids, it is recommended that the bore annulus is uniformly grouted from the bottom to the top via tremie pipe.

Time Between Loop Installation and Testing – A minimum delay of five days between loop installation and test startup is recommended for bores that are air drilled, and a minimum waiting period of two days for mud rotary drilling.

Undisturbed Formation Temperature Measurement – The undisturbed formation temperature should be determined by recording the loop temperature as the water returns from the u-bend at test startup.

Required Test Duration – A minimum test duration of 36 hours is recommended, with a preference toward 48 hours.

Data Acquisition Frequency - Test data is recorded at five minute intervals.

Equipment Calibration/Accuracy – Transducers and datalogger are calibrated per manufacturer recommendations. Manufacturer stated accuracy of power transducers is less than $\pm 2\%$. Temperature sensor accuracy is periodically checked via ice water bath.

Power Quality – The standard deviation of the power should be less than or equal to 1.5% of the average power, with maximum power variation of less than or equal to 10% of the average power.

Input Heat Rate – The heat flux rate should be 51 Btu/hr (15 W) to 85 Btu/hr (25 W) per foot of installed bore depth to best simulate the expected peak loads on the u-bend.

Insulation – GRTI's equipment has 1 inch of foam insulation on the FTC unit and 1/2 inch of insulation on the hose kit connection. An additional 2 inches of insulation is provided for both the FTC unit and loop connections by insulating blankets.

Retesting in the Event of Failure – In the event that a test fails prematurely, a retest may not be performed until the bore temperature is within 0.5°F of the original undisturbed formation temperature or until a period of 14 days has elapsed.

DATA ANALYSIS

Geothermal Resource Technologies, Inc. (GRTI) uses the "line source" method of data analysis to determine the thermal conductivity of the formation. The line source method assumes an infinitely thin line source of heat in a continuous medium. A plot of the late-time temperature rise of the line source temperature versus the natural log of elapsed time will follow a linear trend. The linear slope is inversely proportional to the thermal conductivity of the medium. When a u-bend grouted in a borehole is used to inject heat into the ground at a constant rate in order to determine the average formation thermal conductivity, the test must be run long enough to allow the finite dimensions of the u-bend pipes and the grout to become insignificant. Experience has shown that approximately ten hours is required to allow the error of early test times and the effects of finite borehole dimensions to become insignificant.

In order to analyze real data from a formation thermal conductivity test, the average temperature of the water entering and exiting the u-bend heat exchanger is plotted versus the natural log of elapsed testing time. Using the Method of Least Squares, linear coefficients are then calculated that produce a line that fits the data. This procedure is repeated for various time intervals to ensure that variations in the power or other effects are not producing inaccurate results.

The calculated results are based on test bore information submitted by the driller/testing agency. GRTI is not responsible for inaccuracies in the results due to erroneous bore information. All data analysis is performed by personnel that have an engineering degree from an accredited university with a background in heat transfer and experience with line source theory. The test results apply specifically to the tested bore. Additional bores at the site may have significantly different results depending upon variations in geology and hydrology.

Through the analysis process, the collected raw data is converted to spreadsheet format (Microsoft Excel®) for final analysis. If desired, please contact GRTI and a copy of the data will be made available in either a hard copy or electronic format.

CONTACT: Galen Streich
Regional Managing Engineer
Elkton, SD
(605) 692-9069
gstreich@grti.com

Soils Thermal Conductivity Report

TEST BORE DETAILS

(AS PROVIDED BY VAN BOERUM & FRANK ASSOC., INC.)

Site Name..... Dixie Applied Technology College,
Bore #2

Location..... St. George, UT

Driller..... Earth First Drilling

Installed Date June 24, 2014

Borehole Diameter 4 1/2 inches

U-Bend Size 1 inch HDPE

U-Bend Depth Below Grade 300 ft

Grout Type GeoPro Thermal Grout Lite PowerTEC

Grout Mixture TC=1.07 Btu/hr-ft-°F

Grouted Portion Entire bore

DRILL LOG

FORMATION DESCRIPTION	DEPTH (FT)
Sand, gravel and clay	0'-15'
Hard rock volcanic formation	15'-35'
Dry red shale	35'-165'
Fractured red sandstone	165'-300'

THERMAL CONDUCTIVITY TEST DATA

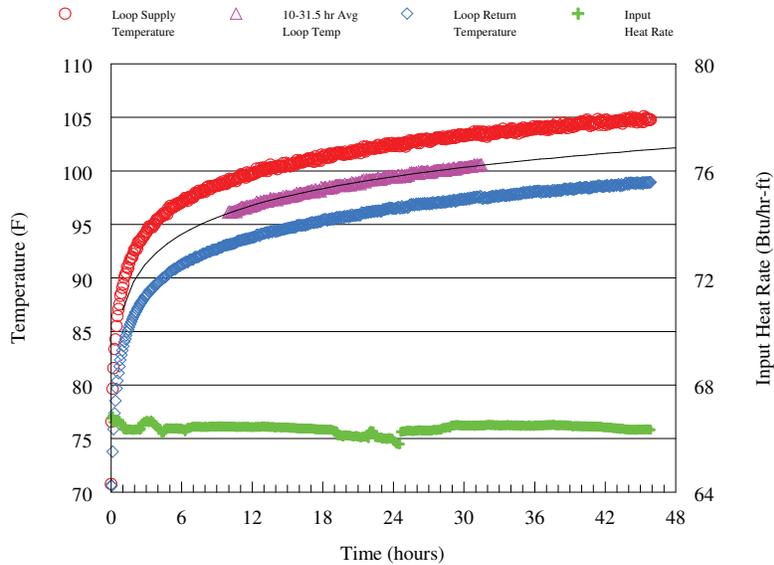


FIG. 1: TEMPERATURE & HEAT RATE DATA VS TIME

Figure 1 above shows the loop temperature and heat input rate data versus the elapsed time of the test. The temperature of the fluid supplied to and returning from the U-bend are plotted on the left axis, while the amount of heat supplied to the fluid is plotted on the right axis on a per foot of bore basis. In the test statistics below, calculations on the power data were performed over the analysis time period listed in the Line Source Data Analysis section.

SUMMARY TEST STATISTICS

Test Date	July 7-9, 2014
Undisturbed Formation Temperature	Approx. 68.1-69.3°F
Duration	45.9 hr
Average Voltage	238.0 V
Average Heat Input Rate	19,893 Btu/hr (5,829 W)
Avg Heat Input Rate per Foot of Bore	66.3 Btu/hr-ft (19.4 W/ft)
Calculated Circulator Flow Rate	6.7 gpm
Standard Deviation of Power	0.25%
Maximum Variation in Power	0.79%

Soils Thermal Conductivity Report

LINE SOURCE DATA ANALYSIS

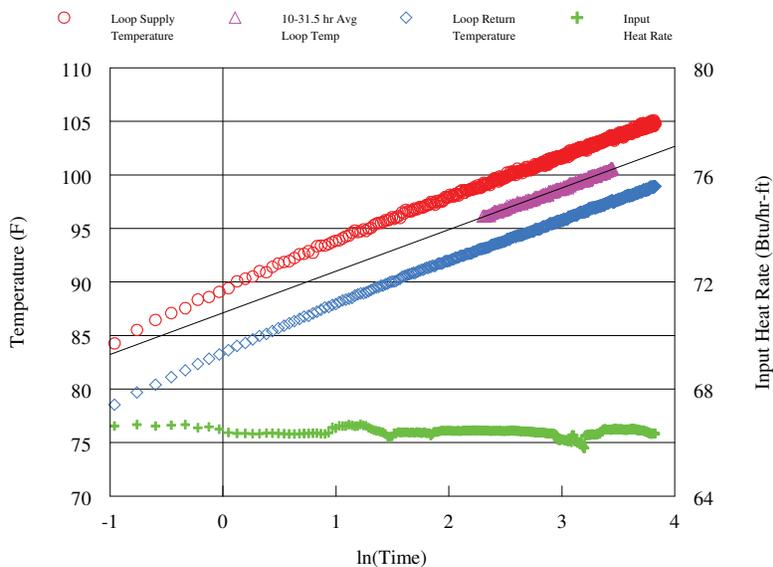


FIG. 2: TEMPERATURE & HEAT RATE VS NATURAL LOG OF TIME

The loop temperature and input heat rate data versus the natural log of elapsed time are shown above in Figure 2. The temperature versus time data was analyzed using the line source method (see page 3) in conformity with ASHRAE and IGSHPA guidelines. A linear curve fit was applied to the average of the supply and return loop temperature data between 10 and 31.5 hours. The slope of the curve fit was found to be 3.88. The resulting thermal conductivity was found to be **1.36 Btu/hr-ft-°F**.

THERMAL DIFFUSIVITY

The reported drilling log for this test borehole indicated that the formation consisted of clay, sand, gravel, shale and sandstone. Heat capacity values for shale and sandstone were calculated from specific heat and density values listed by Kavanaugh and Rafferty (Ground-Source Heat Pumps - Design of Geothermal Systems for Commercial and Institutional Buildings, ASHRAE, 1997). A weighted average of heat capacity values based on the indicated formation was used to determine an average heat capacity of 35.2 Btu/ft³·°F for the formation. A diffusivity value was then found using the calculated formation thermal conductivity and the estimated heat capacity. The thermal diffusivity for this formation was estimated to be **0.93 ft²/day**.

Soils Thermal Conductivity Report



CERTIFICATE OF CALIBRATION

GRTI maintains calibration of the datalogger, current transducer and voltage transducer on a biannual schedule per the manufacturers recommendations. The components are calibrated by the manufacturer using recognized national or international measurement standards such as those maintained by the National Institute of Standards and Technology (NIST).

FTC Unit 246

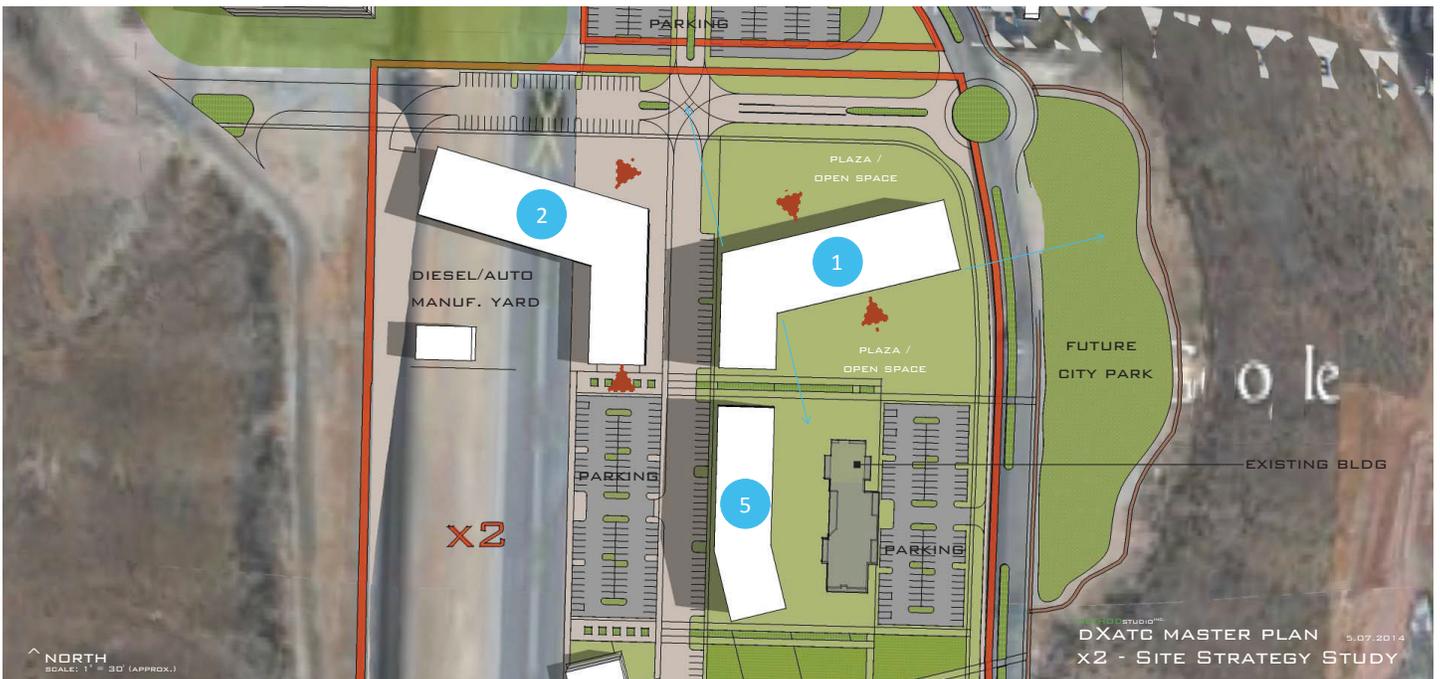
DA Unit 58

PRIMARY EQUIPMENT		
COMPONENT	LAST CALIBRATION DATE	CALIBRATION DUE DATE
Datalogger	11/27/2013	11/27/2015
Current Transducer	12/2/2013	12/2/2015
Voltage Transducer	12/2/2013	12/2/2015

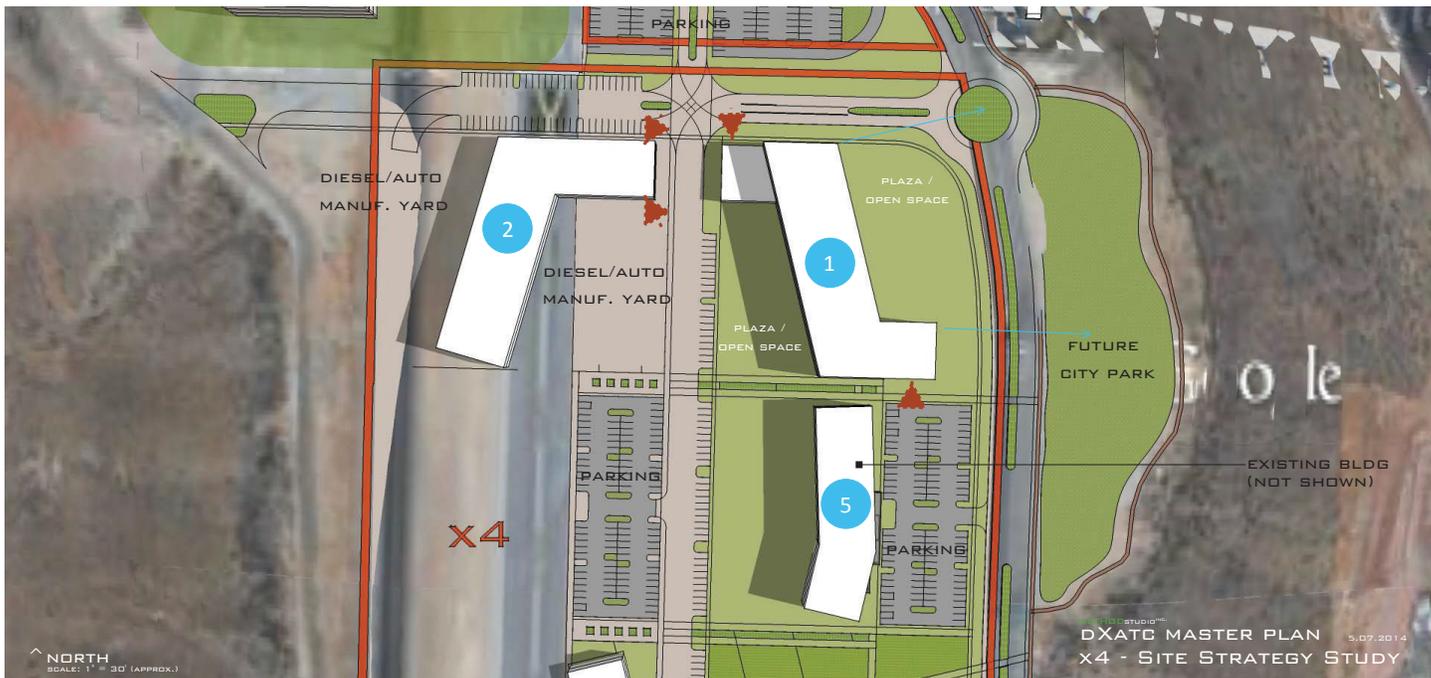
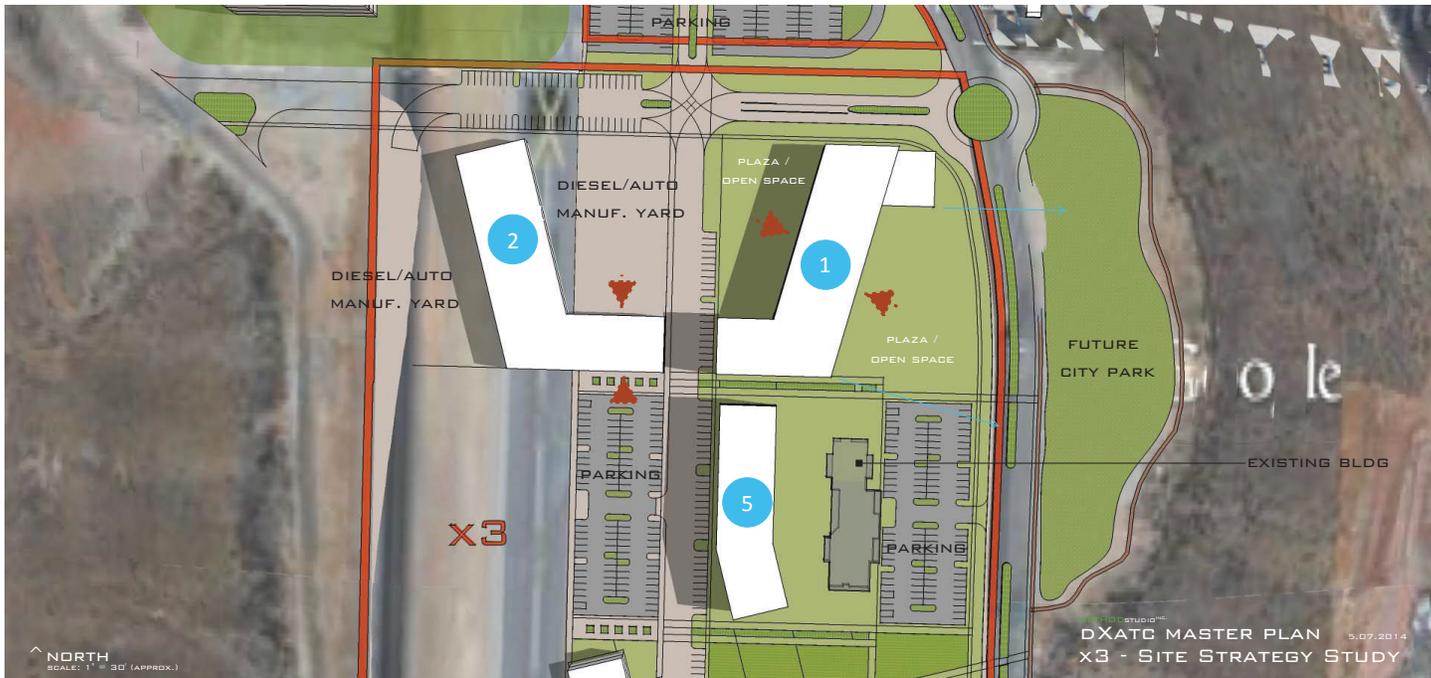
GRTI periodically verifies the combined temperature sensor/datalogger accuracy via a water bath. Temperature readings are simultaneously taken with a digital thermometer that has been calibrated using instruments traceable to NIST.

DATE	12/10/2013	6/24/2014		
THERMOCOUPLE 1 (°F)	31.9 31.9 31.9	32.2 32.1 32.1		
THERMOCOUPLE 2 (°F)	31.9 31.9 31.9	32.2 32.2 32.1		
THERMOCOUPLE 3 (°F)	31.9 31.9 31.9	32.1 32.0 32.0		
THERMOCOUPLE 4 (°F)	31.9 31.9 31.9	32.1 32.1 32.1		
DIGITAL THERMOMETER (°F)	31.9 31.9 31.9	32.3 32.2 32.2		

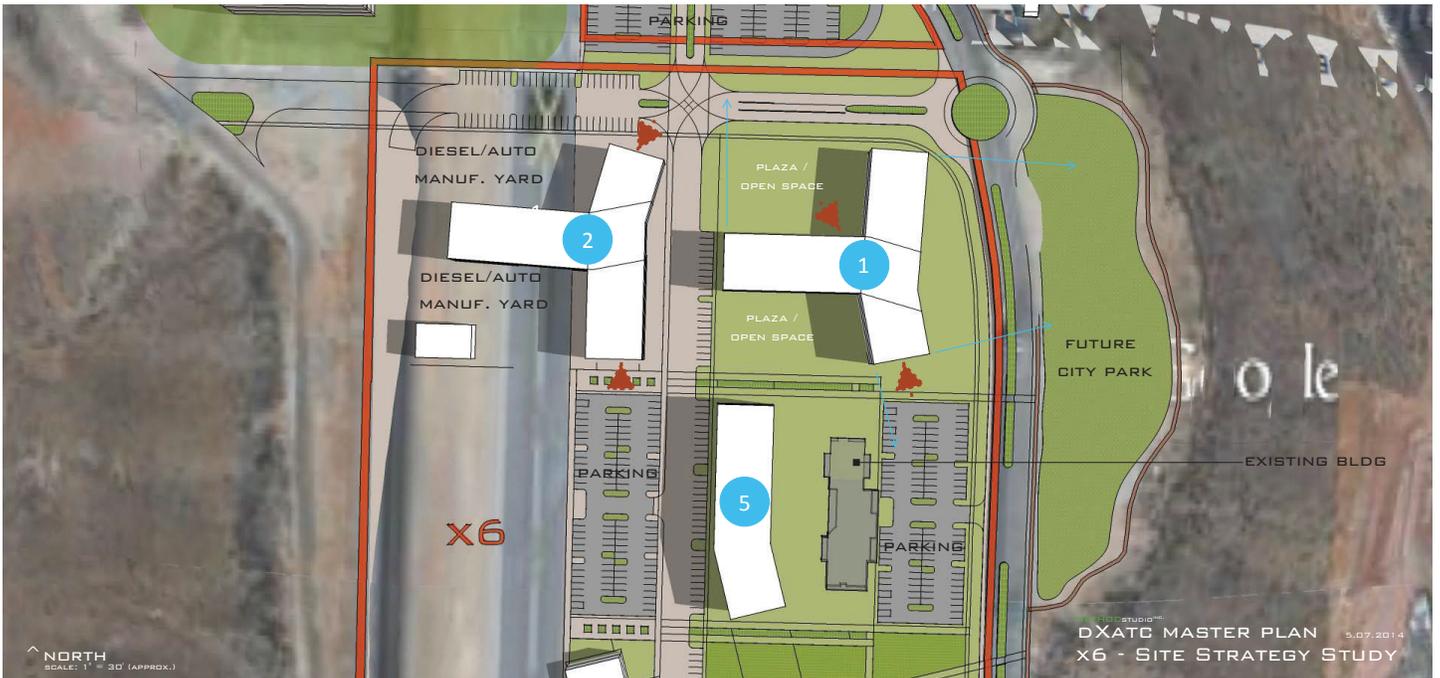
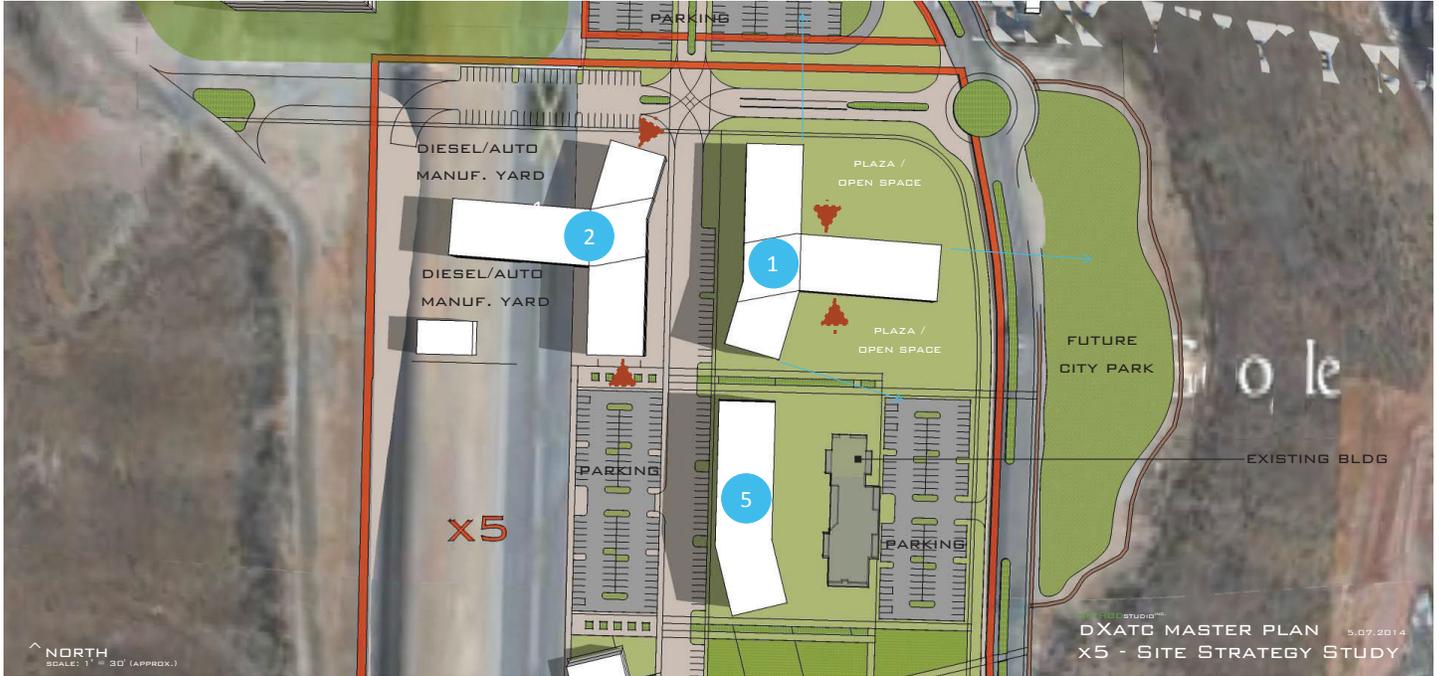
<< Appendices
Additional Site Studies



Appendices >>
Additional Site Studies



<< Appendices
Additional Site Studies

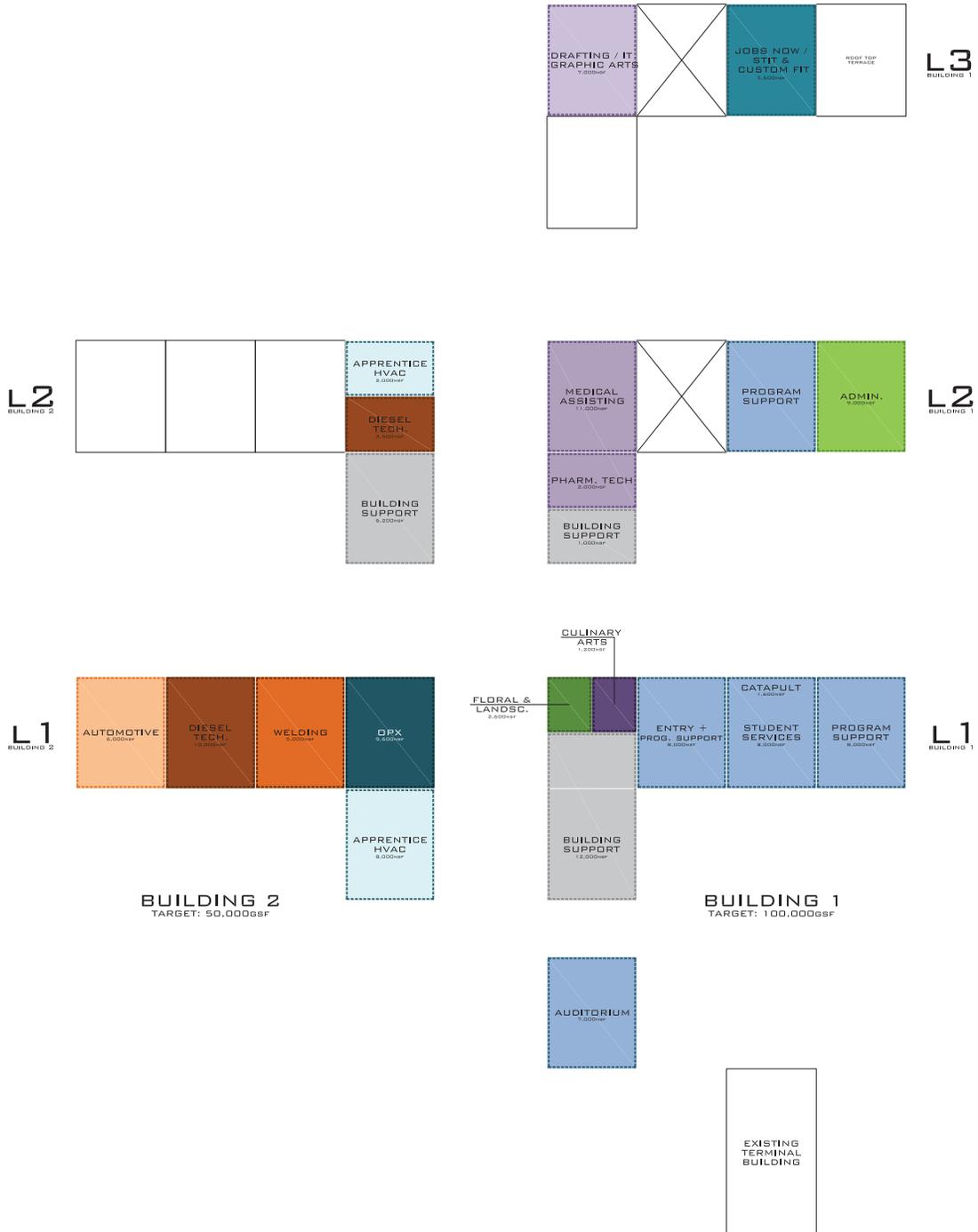


Appendices >> Additional Stacking Diagrams

DXATC: PROGRAM ADJACENCY DIAGRAM

GRAPHIC SCALE: 3' = 1" 0' 3' 6'

OPTION A

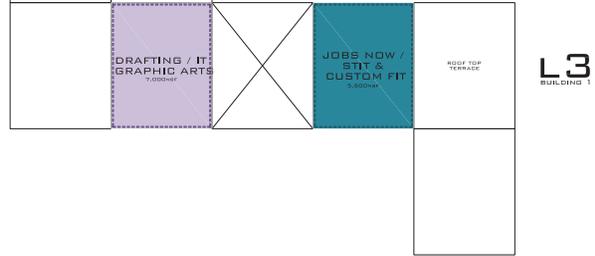


<< Appendices Additional Stacking Diagrams

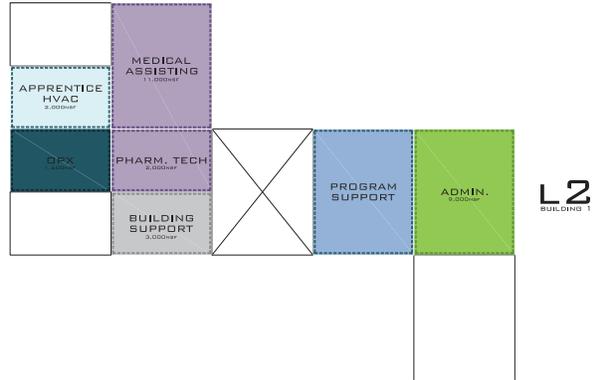
DXATC: PROGRAM ADJACENCY DIAGRAM

GRAPHIC SCALE:

OPTION B



L2 BUILDING 2



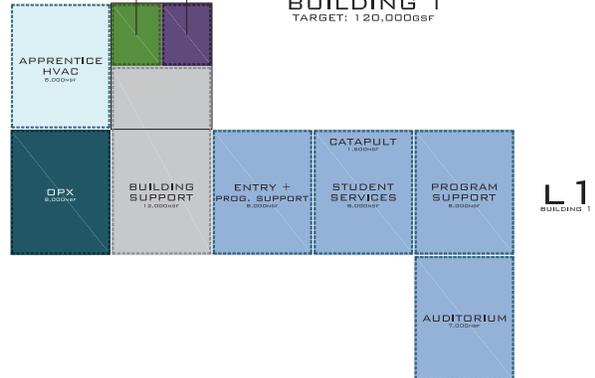
L1 BUILDING 2



BUILDING 2 TARGET: 30,000gsf

FLORAL & LANDSC. 2,000gsf
CULINARY ARTS 1,000gsf

BUILDING 1 TARGET: 120,000gsf

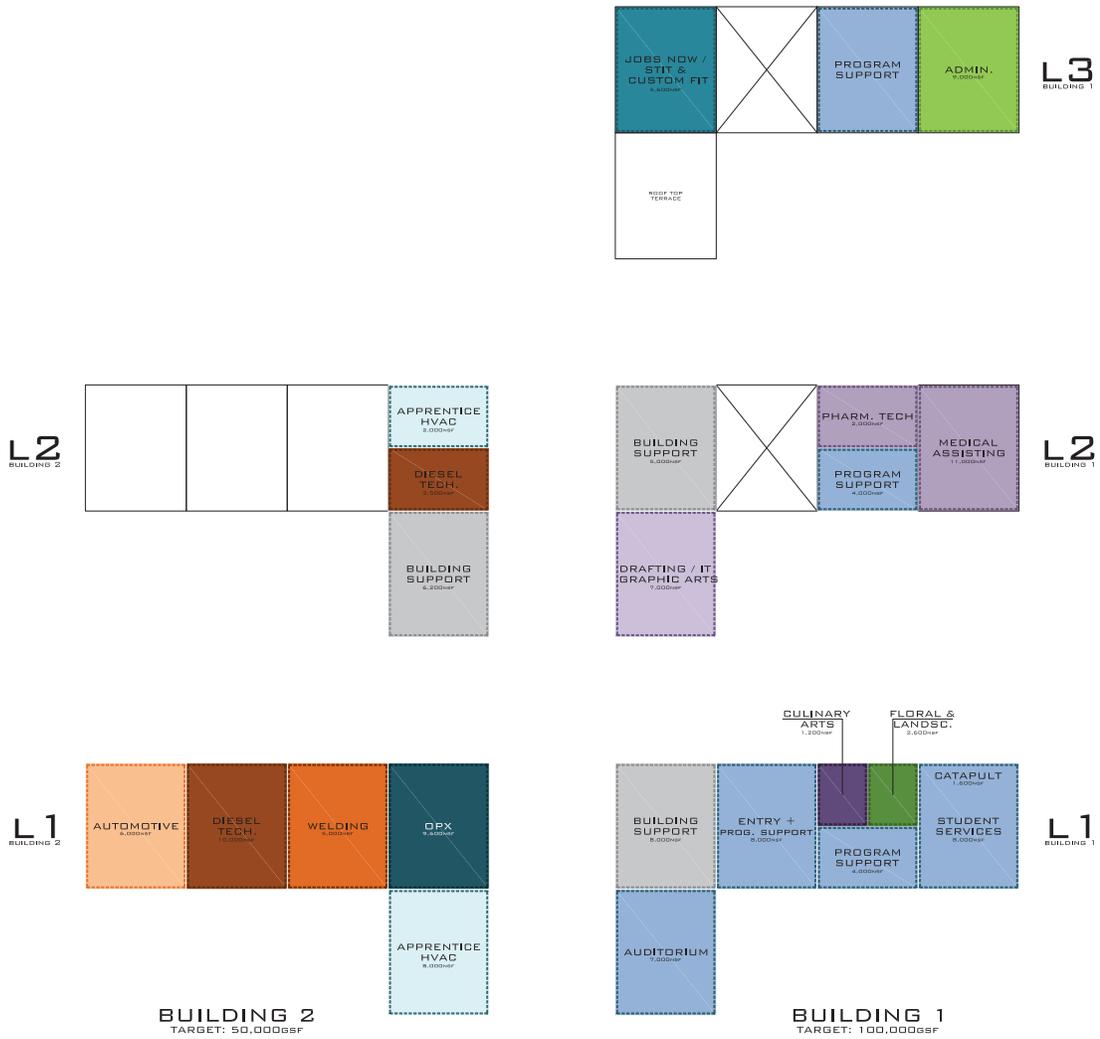


Appendices >>
Additional Stacking Diagrams

DXATC: PROGRAM ADJACENCY DIAGRAM

GRAPHIC SCALE:
30' 10' 0' 20'

OPTION C

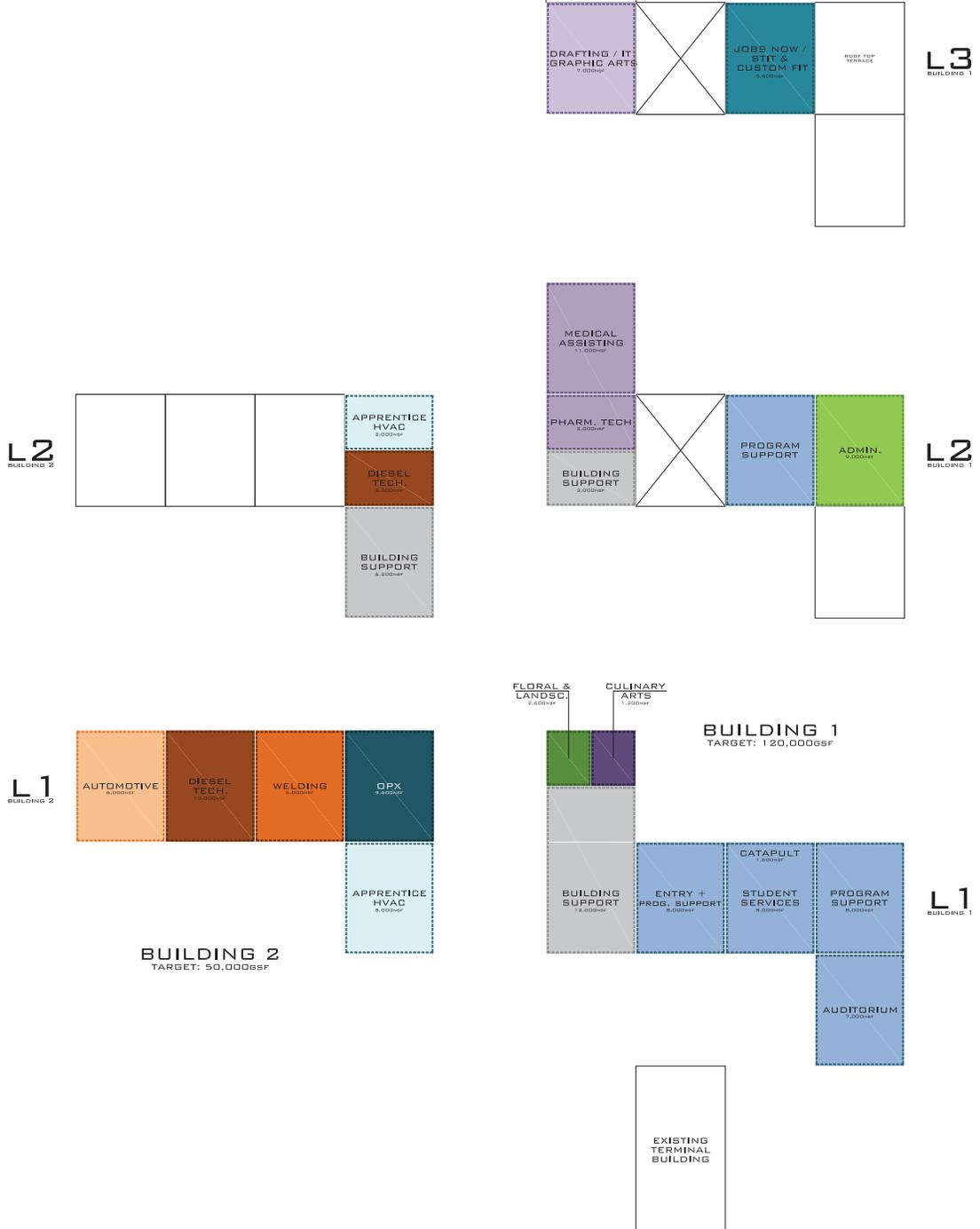


<< Appendices Additional Stacking Diagrams

May 2, 2014
DXATC: PROGRAM ADJACENCY DIAGRAM

GRAPHIC SCALE:
3' 0" 1' 0" 3' 0" 6' 0"

OPTION D

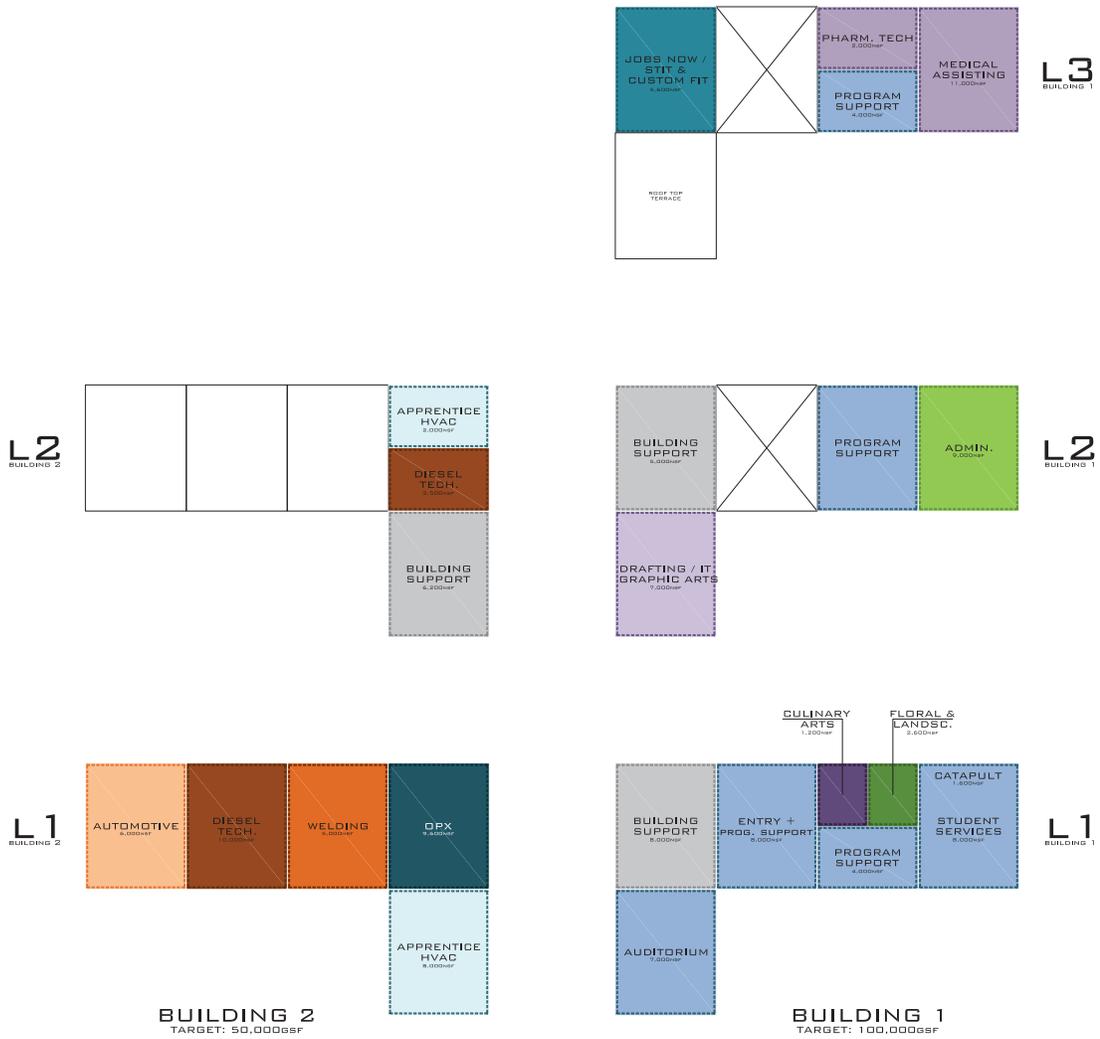


Appendices >>
Additional Stacking Diagrams

DXATC: PROGRAM ADJACENCY DIAGRAM

GRAPHIC SCALE:
 3' 0" 15' 0" 30' 0" 45' 0"

OPTION E

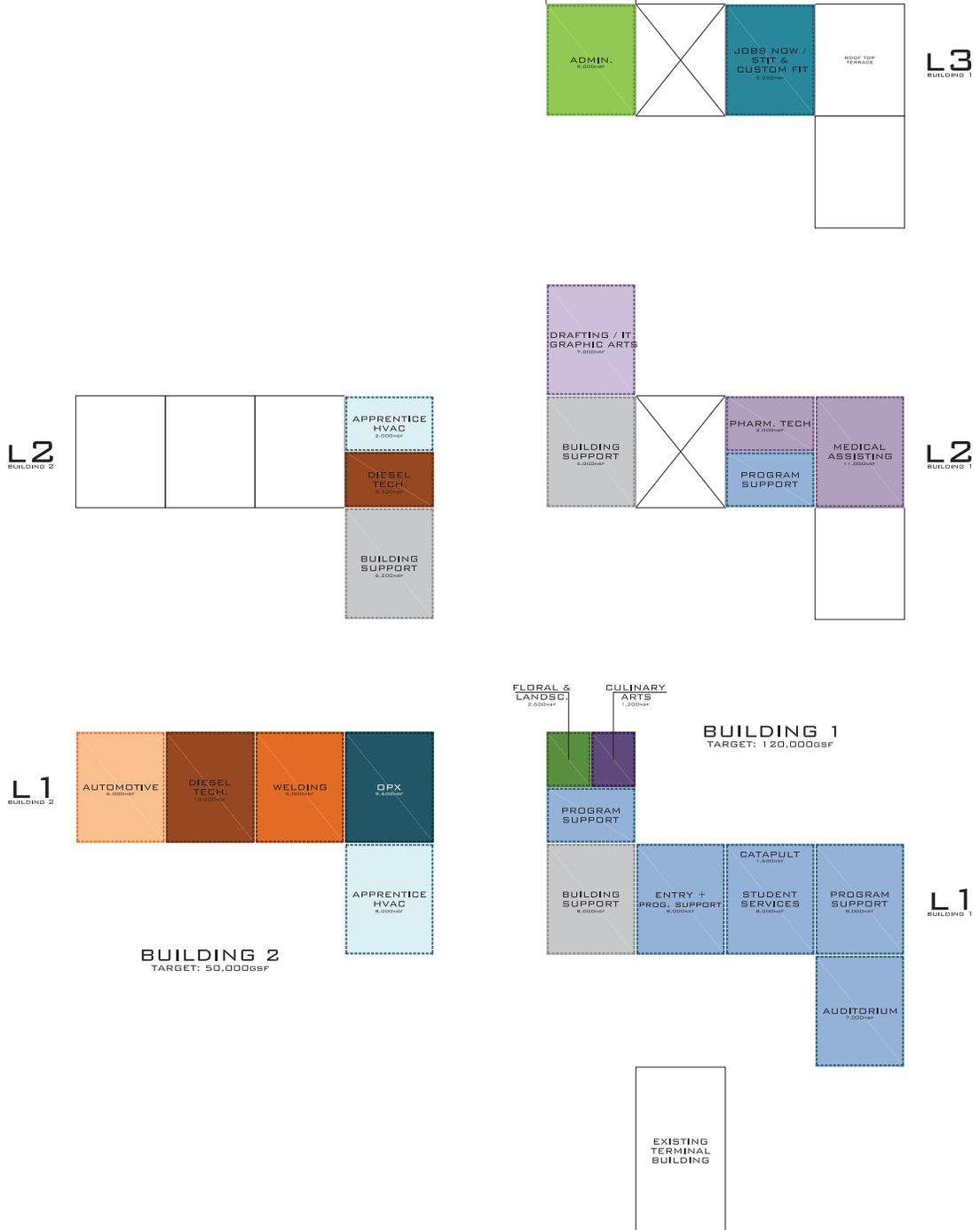


<< Appendices Additional Stacking Diagrams

May 2, 2014
DXATC: PROGRAM ADJACENCY DIAGRAM

GRAPHIC SCALE:
3' 0" 1' 0" 3' 0" 6' 0"

OPTION F

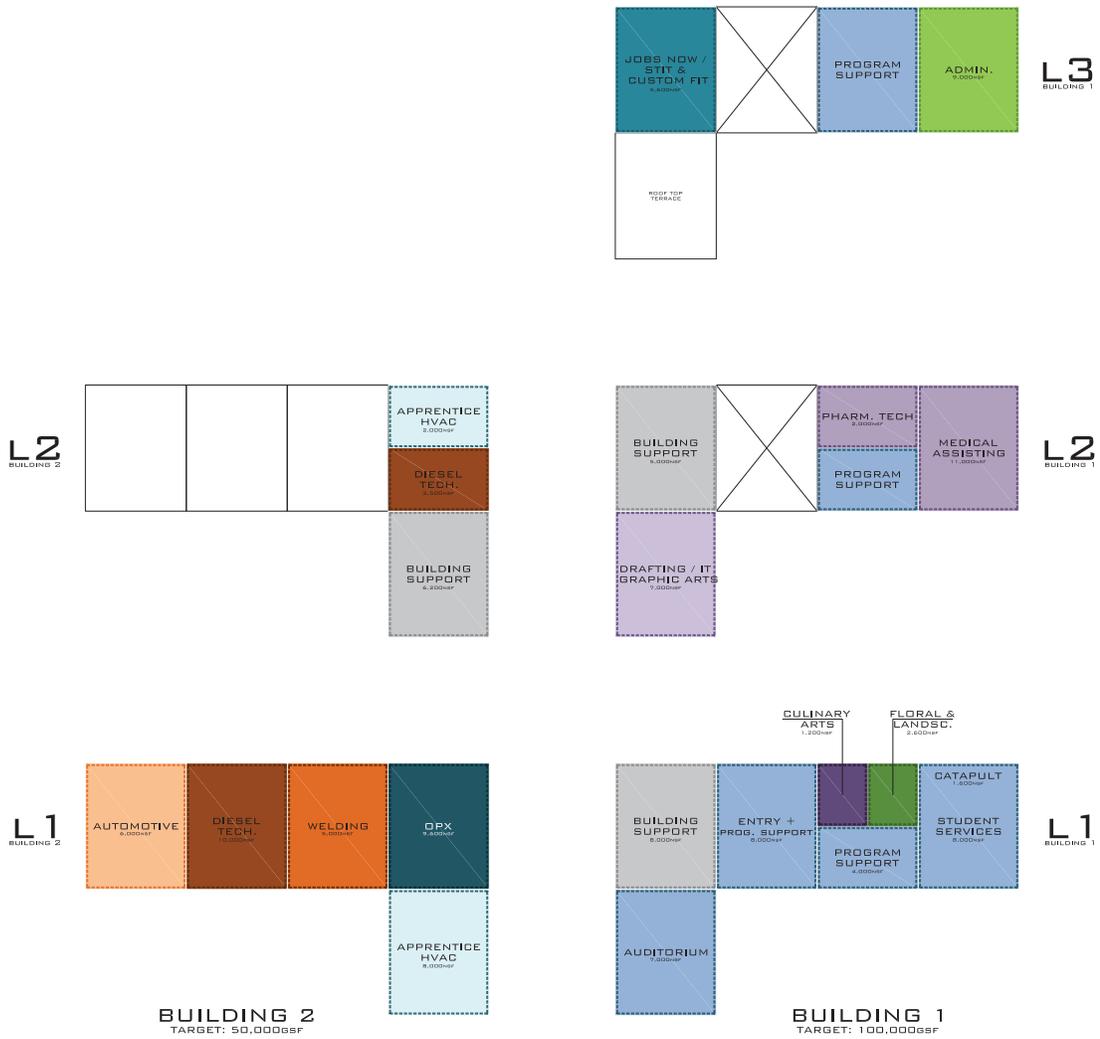


Appendices >>
Additional Stacking Diagrams

May 2, 2014
DXATC: PROGRAM ADJACENCY DIAGRAM

GRAPHIC SCALE:
 30' 10' 0'

OPTION G

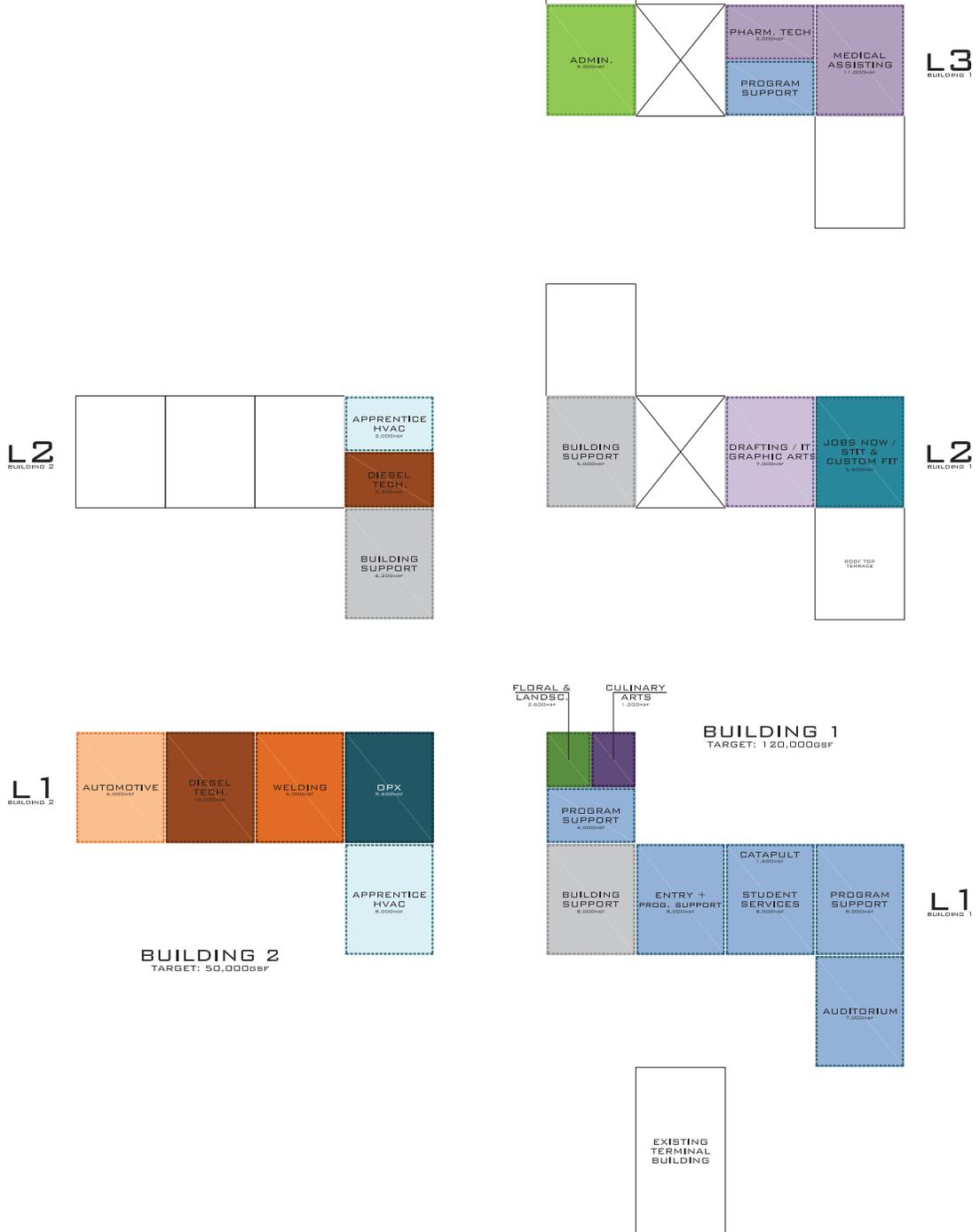


<< Appendices Additional Stacking Diagrams

May 2, 2014
DXATC: PROGRAM ADJACENCY DIAGRAM

GRAPHIC SCALE:
3' 0" 1' 0" 2' 0" 3' 0"

OPTION H

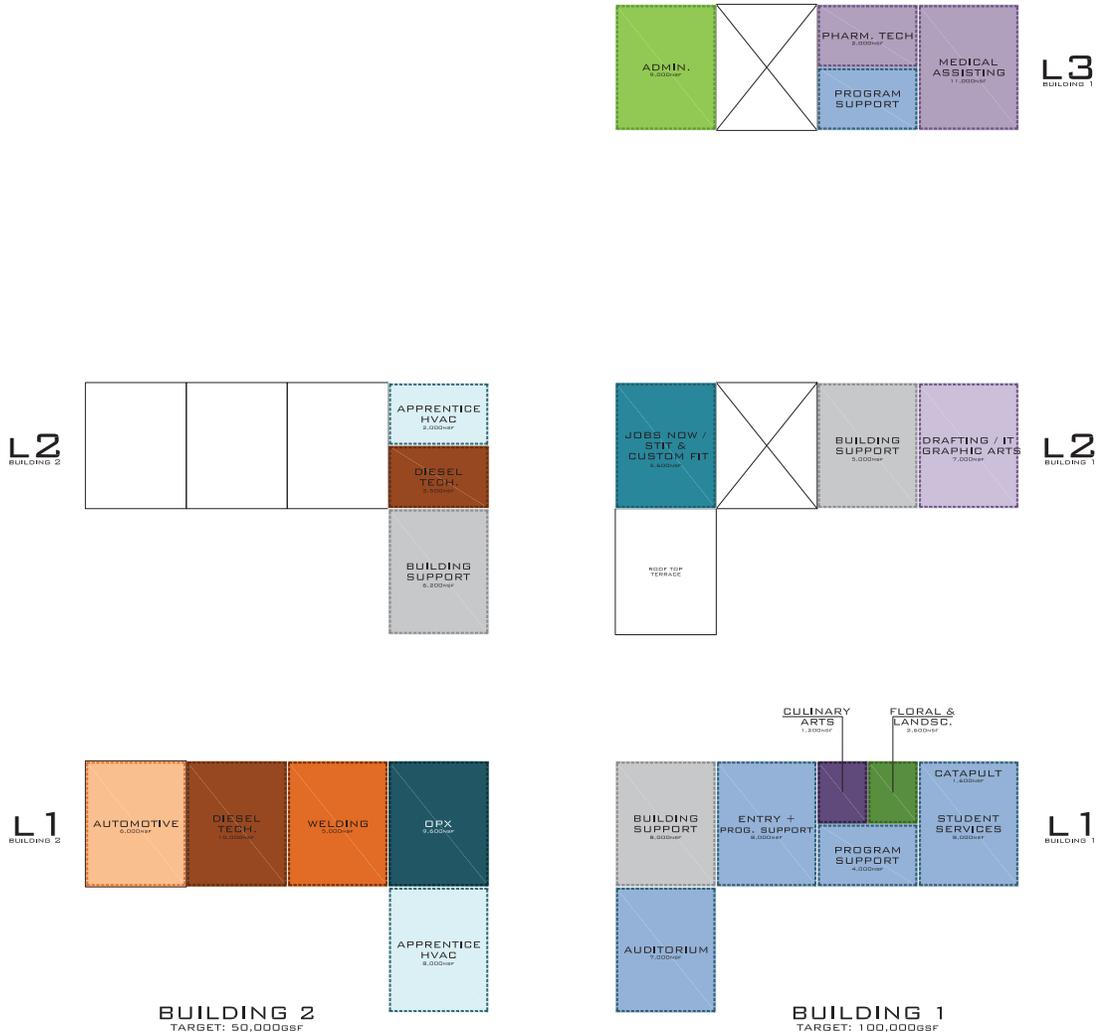


Appendices >>
Additional Stacking Diagrams

MAX. 2' 0" / 24" DXATC: PROGRAM ADJACENCY DIAGRAM

GRAPHIC SCALE:
 3' 0" 0' 3' 0" 6' 0"

OPTION J



PROGRAM EQUIPMENT LIST

June 18, 2014

BY DEPARTMENT

D1 ADMINISTRATION (MARKETING, ETC)

NAME/DESCRIPTION	SIZE	MANUFACTURER	NEW OR EXISTING	POWER	DATA	PLUMBING	LOCATION	NOTES
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D2 PROGRAM SUPPORT SPACES (STUDENT SERVICES, TESTING CENTER, KITCHEN, ETC)

NAME/DESCRIPTION	SIZE	MANUFACTURER	NEW OR EXISTING	POWER	DATA	PLUMBING	LOCATION	NOTES
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D3 DIESEL TECHNOLOGY

NAME/DESCRIPTION	SIZE	MANUFACTURER	NEW OR EXISTING	POWER	DATA	PLUMBING	LOCATION	NOTES
Welder		miller	existing	220v/50a		n/A	Various	
Portable hoist			existing	220v/30a		n/A	Various	
Steam cleaner			existing	220v/50a		drops in bays	?	
hoist	12'x 35'	steril Koni	new	220v/50a		n/A	bay	
parts washer	4'x4'		new	220v/50a			storage	
compressor	3'x9'		?			drops in bays	?	
media blaster	4'x4'		existing	110/20			storage	
tire balancer	6'x 4' d		existing	220v/30a		n	storage	
overhead crane			new	?				
gantry crane			new	?				
ventilation system			new	?				

D4 DRAFTING & DESIGN PROGRAM

NAME/DESCRIPTION	SIZE	MANUFACTURER	NEW OR EXISTING	POWER	DATA	PLUMBING	LOCATION	NOTES
Drafting Stations - combo drafting tables & comp.			existing				CLASSROOM	24 STATIONS
Xerox 6030 plotter and stand alone scanner			existing	YES	YES		PRINT ROOM	
Stratasys Objet30 3d printer w/ desktop computer			existing	YES	YES		PRINT ROOM	
high pressure wash bay for 3d printer.			existing	YES	YES	YES	PRINT ROOM	
NextEngine 3d Scanner			existing	YES	YES		PRINT ROOM	
HP T610 24" Plotter			existing	YES	YES		PRINT ROOM	
HP LaserJet 5200			existing	YES	YES		PRINT ROOM	
HP LaserJet 2600N			existing	YES	YES		PRINT ROOM	

D5 IT PROGRAM

NAME/DESCRIPTION	SIZE	MANUFACTURER	NEW OR EXISTING	POWER	DATA	PLUMBING	LOCATION	NOTES
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D6 OFFICE MANAGEMENT PROGRAM

NAME/DESCRIPTION	SIZE	MANUFACTURER	NEW OR EXISTING	POWER	DATA	PLUMBING	LOCATION	NOTES
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D7 MEDICAL ASSISTING PROGRAM

NAME/DESCRIPTION	SIZE	MANUFACTURER	NEW OR EXISTING	POWER	DATA	PLUMBING	LOCATION	NOTES
EKG Machine	1.5' wide, 2.5' deep, 3.5' tall	GE	existing	Yes	no	no	Exam room or storage closet	
Medical Exam Table	4' tall, 3' wide, 6' long		existing (could use new)	yes	no	no	Exam room	
Phlebotomy Arms x2	1' x3'		existing	no	no	no	PHLEBOTOMY Room	
Phlebotomy Chairs x2	3.5'x2'x3'		existing (could use new ones)	no	no	no	PHLEBOTOMY Room	
Phlebotomy Stools x2	2.5'x2'		existing (need one more)	no	no	no	PHLEBOTOMY Room	
Hemoglobinometer	10"x6"		existing	yes	no	no	Lab Prep Room	Counter Top Equipment
Hematocrit Testing Equipment	10"x10"x10"		existing	yes	no	no	Lab Prep Room	Counter Top Equipment
Centrifuge	10"x10"x10"		Existing (could use new ones)	yes	no	no	Lab Prep Room	Counter Top Equipment
Autoclave	2'x2'x3'		New	Yes	no	no	Lab Prep Room	Counter Top Equipment, needs to be next to a sink
Urinalysis Testing Equipment	10"x8"		Existing	Yes	no	no	Lab Prep Room	Counter Top Equipment
Microscope	16"x10"		Existing	Yes	no	no	Lab Prep Room	Counter Top Equipment
Otoscope/Ophthalmoscope Unit	10"x16"		New	Yes	No	no	Exam Room	Mounted On Wall
Glucometer	6"x6"		Existing	no	no	no	Lab Prep Room	Counter Top Equipment
Upright Scale	5'x2'		Existing	no	no	no	Exam Room	
Surgical Tray	2'x16" (adjustable height)		Existing	no	no	no	Surgical Suite	
Vitals Signs Monitor	1'x1'		existing	no	no	no	Exam Room	Hangs from wall in exam room and hospital training rooms
Vitals Signs Monitor	3.5x2.5		existing	yes	no	no	MA Storage	Mounted to rolling stands
Wheel Chairs			existing	no	no	no	MA Storage	
Washer/Dryer	?		New	yes	no	yes	Laundry Room	
Surgical Chair/Table			New	Yes	no	no	Surgical Suite	
Smart Board			Existing	Yes	yes	no	MA Classroom	
Computer Mounted to wall in Exam room	2'x3'		new	yes	yes	no	Exam room	
Surgical Light in Surgical Suite			New	yes	no	no	Surgical Suite	Hangs from Ceiling
Surgical Light in Surgical Suite			new	yes	yes	no	surgical Suite	Stands on floor
Physician Chair in Surgical Suite			new	no	no	no	surgical Suite	On wheels
Infant Scale	1'x2'		existing	yes	no	no	Exam Room	Counter Top Equipment
30 Computers in Computer lab			new	yes	yes	no	Computer Lab	

Appendices >> Equipment List

CNA									
6 Hospital Beds	3'x8' (adjustable height)		2 existing, need the rest new	yes	no	no		Hospital Training Room	
6 Manequins	fit in bed		2 existing	no	no	no		Hospital Training Room	
6 Bedside Tables (nightstand)	Varies		new	no	no	no		Hospital Training Room	
6 Over the bed tables	3'x1.5'		new	no	no	no		Hospital Training Room	
Privacy Curtains			new	no	no	no		Hospital Training Room	
Upright Scale	5'x2'		Existing	no	no	no		Open Lab	
Vitals Signs Monitor	1'x1'		existing	no	no	no		Hospital Training Room	Hangs from wall
Vitals Signs Monitor	3.5x2.5		existing	yes	no	no		CNA Storage	mounted to rolling carts
Clean Linen Cart	Size Varies (5'x5')		new	no	no	no		Laundry Room	
Dirty Linen Hamper	1.5x1.5x3.5 tall		existing	no	no	no		Hospital Training Room	
Reclining Patient Chairs	varies		new	no	no	no		Hospital Training Room	
Wheel Chairs			new	no	no	no		CNA Storage	
Call lights			new	yes	no	no		Hospital Training Room	One for every room, including light outside of room and main unit at Nurses Station
ADA Accessible Restroom Call Light			new	yes	no	no		ADA Accessible Restroom	
Sharps Containers	1'x2'		new	no	no	no		One in every clinical	Mounted to Wall
Wall Mounted Glove Dispenser	1'x16"		new	no	no	no		One in every clinical	Mounted to Wall
Wall mounted hand sanitizer dispenser	6"x1'		new	no, battery powered	no	no		At least one in every	Mounted to Wall
Walkers			existing	no	no	no		CNA Storage	
Canes			new	no	no	no		CNA Storage	
Bedside Commode	3'x2'		new	no	no	no		CNA Storage	
Mechanical Lift	4'base	Hoyer	New	yes	no	no		CNA Storage	
Smart Board			existing	yes	yes	no		CNA Classroom	
Computer Mounted to wall in hospital training rooms	2'x3'		new	yes	yes	no		Hospital Training Room	
Copier/Printer/Scanner/Fax	2'x2.5'x4.5'		new	yes	yes	no		Work Room	

08 PHARMACY TECH PROGRAM									
NAME/DESCRIPTION	SIZE	MANUFACTURER	NEW OR EXISTING	POWER	DATA	PLUMBING	LOCATION	NOTES	
Computer			new	yes	yes		PhT Office		
Printer			new	yes			PhT Office		
Computer			new	yes	yes		PhT Classroom		
Smart Bd.			new	yes	yes		PhT Classroom		
Projector			new	yes	yes		PhT Classroom		
4 Computers			new	yes	yes		PhT Lab		
4 Scanners			new	yes			PhT Lab		
2 Thermal printers			new	yes			PhT Lab		
IV Hood			existing	yes		yes	PhT Lab		
Parata Robot			existing	yes/220	yes		PhT Lab		
sink			new	n	n	yes	PhT Lab		

09 APPRENTICE PROGRAMS / HVAC									
NAME/DESCRIPTION	SIZE	MANUFACTURER	NEW OR EXISTING	PHASE	POWER	AMOUNT	DATA	LOCATION	NOTES
Interior walls Electrical Apprenticeship				1	240 VAC	6			Each 50 amp circuit
Interior walls Electrical Apprenticeship				1	120 VAC	12			Each 20 amp circuit
Hanging center of room Electrical Apprenticeship				1	120 VAC	4			Each 20 amp circuits
Hanging center of room Electrical Apprenticeship				1	240 VAC	4			Each 50 amp circuits
Electrical				3	240 VAC	4			Each 50 amp circuits
Interior walls Plumbing Apprenticeship				1	240 VAC	6			Each 40 amp circuit
Interior walls Plumbing Apprenticeship				1	120 VAC	12			Each 20 amp circuit
Hanging center of room Plumbing Apprenticeship				1	120 VAC	4			Each 20 amp circuits
Hanging center of room Plumbing Apprenticeship				1	240 VAC	4			Each 40 amp circuits
Plumbing				3	240 VAC	4			Each 50 amp circuits
HVAC				1	240 VAC	12			Each 50 amp circuits
HVAC				1	120 VAC	20			Each 20 amp circuits
HVAC				3	240 VAC	4			Each 50 amp circuits
HVAC Hanging above workbenches				1	120 VAC	4			Each 20 amp circuits
HVAC Hanging above workbenches				1	240 VAC	4			Each 20 amp circuits

10 DENTAL OFFICE & DENTAL ASSISTANT									
NAME/DESCRIPTION	SIZE	MANUFACTURER	NEW OR EXISTING	POWER	DATA	PLUMBING	LOCATION	NOTES	

11 OPX									
NAME/DESCRIPTION	SIZE (width x depth)	CLEARANCE (L/R, F/B)	NEW/EXIST.	POWER	DATA	QUANTITY	NOTES		
Haas VF-0E CNC Mill	8 x 7	4 4	4 6	Existing	50	1			
Hardinge CHNC II CNC Lathe	11 x 5	4 4	4 6	Existing	50	1			
Okuma LB 15 CHC Lathe	10 x 7	4 4	4 6	Existing	50	1			
Brother TC201 CNC 4-Axis Mill	3 x 5	3 3	3 6	Existing	50	1			
Fadal VMC-15 CNC Mill	7 x 7	4 4	4 6	Existing	50	1			
Kent Vertical Manual Mill	7 x 7	2 2	2 5	Existing	30	1			
Enco Manual Mill	6 x 4	2 2	2 5	Existing	20	1			
Bolton Combo Mill / Lathe	4 x 2	2 2	2 5	Existing	20	1			
Enco Manual Lathe	4 x 2	2 2	2 5	Existing	20	1			
Bolton Manual Lathe	6 x 3	3 3	3 5	Existing	20	1			

<< Appendices
Equipment List

Central Drill Press	2	x	3	2	2	2	4	Existing	12	1
Enco Drill Press	2	x	3	2	2	2	4	Existing	10	1
Delta Drill Press	2	x	3	2	2	2	4	Existing	10	1
Franklin Horizontal Band Saw	6	x	3	2	2	2	4	Existing	20	1
Miller-Matic 135 MIG Welder	1.5	x	3					Existing	20	1
Hobart Beta MIG II Welder	1.5	x	4					Existing	60	1
Miller Synchronwave TIG Welder	2	x	4					Existing	60	1
Hobart StickMate Arc Welder	1.5	x	2					Existing	60 ea	2
Home Depot Compressor	3	x	2				3	Existing	56	1
Lowe's Mobile Compressor	1.5	x	2				2	Existing	20	1
Gardner Denver 40 Hp Compressor	4	x	5	4	4	4	4	Existing	60	1
Maxi-Blast Media Shot Cabinet	15	x	3	2	2	3	5	Existing	15	1
Rempe Vibratory Debur/Finisher	4	x	4	3	3	3	4	Existing	40	1
Rempe Dryer - Needs Water	4	x	2	3	3	3	4	Existing	15	1
Delta Chop Saw	1.5	x	2.5	1	1	1	4	Existing	15	1
Dewalt Chop Saw	1.5	x	2.5	1	1	1	4	Existing	15	1
Enco Belt Sander	2	x	2	1	1	1	4	Existing	11	1
Oxy-Acetylene Welding Cart	2.5	x	2				3	Existing	No Power	1
Star Automation Trainer	9	x	9	3	3	3	3	Existing	20	1
Allen Bradley PLC Trainer	3	x	3	1	1	1	5	Existing	20	2
Floor Standing Grinder	1.5	x	1.5	3	3	1	4	Existing	7	1
Stainless Steel Tool Box	3	x	2				4	Existing	No Power	1
Black Husky Tool Box	2.5	x	2				4	Existing	No Power	1
Black Husky Double Tool Box	4	x	2				4	Existing	No Power	1
Step Ladders	3	x	2					Existing	No Power	5
Heat Treat Oven	3	x	2.5				4	Existing	30	1
Stainless Tool Carts	2.5	x	2.5	1	1	1	3	Existing	No Power	5
Yellow Hydraulic Carts	1.5	x	3	1	1	1	3	Existing	No Power	2
Gray Tooling Carts	2	x	3	1	1	1	3	Existing	No Power	2
Black Tool Carts	2.5	x	1.5	1	1	1	3	Existing	No Power	2
Equipment Manual Cabinet	3	x	2				4	Existing	No Power	1
Tool Storage Cabinets	2.5	x	2				4	Existing	No Power	2
Tool Storage Cabinets	3.5	x	2				4	Existing	No Power	2
Tooling Storage Cabinet	6	x	3.5				4	Existing	No Power	1
Shop Vacs	2	x	3					Existing	12A each	3
Material Racks	4	x	2				4	Existing	No Power	3
Hand Truck Dolly	1.5	x	1.5					Existing	No Power	1
Pallet Jack	2.5	x	5				3	Existing	No Power	1
80 Ton Hydraulic Press	6	x	4	1	2	2	4	Existing	No Power	1
Aluminum Welding Tables	6.5	x	5				4	Existing	No Power	2
Craftsman Workbench	6	x	2.5				5	Existing	20	1
Husky Workbenches	5	x	2.5				5	Existing	No Power	2
Stainless Steel Welding Table	7	x	2.5	3	3		5	Existing	No Power	1
Black Power Tool Workbench	9	x	2.5	3	3	5	5	Existing	No Power	1
Stainless Steel Sinks	8	x	2.5				5	Existing	No Power	2
Refrigerator	2.5	x	2.5				4	Existing	20	1
Hydraulics Trainer	9	x	3				5	Existing	20	1
Pneumatics Trainer	9	x	3				5	Existing	20	1
Blue Steel Workbench	4	x	3	3	3		5	Existing	No Power	1
Black Steel Workbench	6	x	3	3	3		5	Existing	No Power	1
Rolling Storage Cabinets	3	x	2				4	Existing	No Power	5
Steel Flammables Cabinet	4	x	2	2	2		4	Existing	No Power	1
Fixed Box Cabinets with Counters	35	x	2.5				3	Existing	No Power	1
10 Ton Hoist	9	x	5					Existing	No Power	1
Trash Cans	2	x	2					Existing	No Power	8
Teacher's Podiums	5	x	2.5	5	5	1	5	Existing	20 each	2
Student Desks with 2 Chairs	5	x	2				3	Existing	No Power	30
Starrett CMM Granite Table	5	x	5	4	4	3	5	Existing	No Power	1
Starrett CMM Workstation	5	x	2				3	Existing	20	1
Electronics Repair Toolroom	10	x	12					Existing	4 @ 20A	1
Administrative Reception Area	15	x	10	4	4		10	Existing	4 @ 20A	1
Program Director's Office	15	x	15					Existing	3 @ 20A	1
Instructor's Office	12	x	15					Existing	3 @ 20A	1
Storage Containers	40	x	8					Existing	No Power	2

Appendices >> Student Enrollment Growth Chart

DXATC CAMPUS GROWTH CHART											
STARTING YEAR	TARTING MEMB. - HRS	RATE (GROWTH)	PERIOD (YR)	MEMBERSHIP HOURS	FUTURE YEAR	AVE. MEMB. HRS/YR	RECOMMENDE D GSF/YR	SUGGESTED CAMPUS BUILD-OUT (COMBINED)	SUGGESTED # OF STUDENTS	ACTUAL # OF STUDENTS	ACTUAL GSF/STUDENT
2013	250,000	5.00%	1	262,500	2014	200	100	131,250 GSF	1,312,500 Students	7,000	40,000
2	275,625	2015	2	289,406	2016			137,813 GSF	1,378,133 Students		
3	303,877	2017	3	319,070	2018			144,703 GSF	1,447,033 Students		
4	335,024	2019	4	351,775	2020			151,938 GSF	1,519,338 Students		
5	369,364	2021	5	387,832	2022			159,535 GSF	1,595,335 Students		
6	407,224	2023	6	427,585	2024			167,512 GSF	1,675,112 Students		
7	448,964	2025	7	471,412	2026			175,888 GSF	1,758,888 Students		
8	494,983	2027	8	519,732	2028			184,682 GSF	1,846,682 Students		
9	545,719	2029	9	573,005	2030			193,916 GSF	1,939,116 Students		
10	601,655	2031	10	631,738	2032			203,612 GSF	2,036,112 Students		
11	663,324	2033	11	696,491	2034			213,792 GSF	2,137,912 Students		
12	731,315	2035	12	767,881	2036			224,482 GSF	2,244,482 Students		
13	806,275	2037	13	846,589	2038			235,706 GSF	2,357,016 Students		
14	888,918	2039	14	933,364	2040			247,491 GSF	2,474,911 Students		
15			15					259,866 GSF	2,598,616 Students		
16			16					272,859 GSF	2,728,519 Students		
17			17					286,592 GSF	2,865,012 Students		
18			18					300,827 GSF	3,008,217 Students		
19			19					315,869 GSF	3,158,619 Students		
20			20					331,662 GSF	3,316,612 Students		
21			21					348,245 GSF	3,482,415 Students		
22			22					365,658 GSF	3,656,518 Students		
23			23					383,940 GSF	3,839,410 Students		
24			24					403,137 GSF	4,031,317 Students		
25			25					423,294 GSF	4,232,914 Students		
26			26					444,459 GSF	4,444,519 Students		
27			27					466,682 GSF	4,666,612 Students		

UCAT CAMPUS COMPARISON CHART											
UCAT CAMPUS	2013 TOTAL MEMBERSHIP HOURS	STUDENTS	PERIOD (YR)	MEMBERSHIP HOURS	FUTURE YEAR	AVE. MEMB. HRS/YR	RECOMMENDE D GSF/YR	SUGGESTED CAMPUS BUILD-OUT (COMBINED)	SUGGESTED # OF STUDENTS	ACTUAL # OF STUDENTS	ACTUAL GSF/STUDENT
BATC	1,047,916	5,950	1	1,174,915	2014	200	100	131,250 GSF	1,312,500 Students	7,000	40,000
DXATC (current)	1,404,562	6,282	2	1,525,251	2015	200	100	137,813 GSF	1,378,133 Students		
MATC	250,000	7,093	3	289,406	2016			144,703 GSF	1,447,033 Students		
OWATC	922,341	3,797	4	1,019,070	2017			151,938 GSF	1,519,338 Students		
SWATC	1,174,316	5,227	5	1,299,070	2018			159,535 GSF	1,595,335 Students		
TATC	242,875	1,433	6	335,024	2019			167,512 GSF	1,675,112 Students		
UBATC	88,539	431	7	351,775	2020			175,888 GSF	1,758,888 Students		
UBATC	534,997	5,709	8	369,364	2021			184,682 GSF	1,846,682 Students		
AVERAGES:	708,174	4,497	171	219,313	2040			466,682 GSF	4,666,612 Students	421,093	842,186
DXATC (5 YRS)	500,000	2,500	200.00	174.95				2.91	60	NA	NA
BATC				359,620				2.93	57	596,000	1,192,000
DXATC (current)				357,059				6.40	6	450,000	500,000
MATC				35,25				4.49	54	260,000	520,000
OWATC				205,529				2.62	86	1,000,000	2,000,000
SWATC				448,530				2.62	51	140,000	280,000
TATC				72,500				3.35	187	80,559	161,118
UBATC				80,559				1.10	34	NA	NA
AVERAGES:				219,313				2.79	67	421,093	842,186
DXATC (5 YRS)				170,000				2.94	68	450,000	500,000

Bacgen Renewable Energy & Energy Efficiency Master Plan



DXATC CAMPUS MASTERPLAN



PLANNING STAGES INPUT ON RENEWABLE ENERGY AND ENERGY EFFICIENCY

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Bacgen Renewable Energy & Energy Efficiency Master Plan

INTRODUCTION



The Dixie College for Applied Technology (DXATC), which currently has buildings across at locations in St George, is currently in the planning stages of a new campus. A 25 year plan, in 5 year stages, is being drawn up for a College Campus that houses such disciplines as automotive, autobody, pharmaceutical, culinary arts, wildland fire, police academy, graphic arts, IT, drafting design, diesel, construction, HVAC, welding, floral/landscape, medical assistance and electrical & plumbing apprenticeships.

The future campus will be located at South Airport Road in Saint George, UT. The disused airstrip and building that are currently at that location will be partially incorporated in the future build-out of the campus. The runway is envisaged to be used for safety training courses.

Currently the conceptual design is being developed, with the intent of addressing State legislature for funding of the new college, in Q3 -Q4 of 2014.

BacGen proposes to have an advisory role pertinent to the renewable energy and water conservation aspects of the design of the future buildings and campus grounds.

In line with modern design practices, the new DXATC should consider to include such elements as solar Photovoltaic, solar hot water, ground source heat pump, grey water recycling, water conserving landscaping, and features to maximize room shade in the summer as well as natural heating in the winter.

This document is the first draft that discusses some of those aspects, with some financial recommendations. This document will be modified as more information will become available.

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SOLAR MODULES ON THE ROOF AND CAR PARK CANOPIES



- *Roof mounted solar modules would offset 10-20% of building electrical consumption*
- *This percentage can be increased if solar car park canopies are considered*
- *Minimize mechanical plant (HVAC equipment) on roof (consider basement or sub-roof location)*
- *The electrical Utility (City of St George) is not obligated to allow Net Metering but may allow it by special Board request*
- *The capital investment of solar may be offset through a third party investor (a so called Power Purchase Agreement – PPA)*

Solar PV modules rarely offset the entire electrical consumption of a multi-story building, unless the building is built to extremely high energy efficiency.

A typical existing multi-use or multi-story office building may have an energy budget (or Energy Use Intensity, EUI) of 90-95 kBtu/ft². A new building that is built to code may have an EUI of about 50 kBtu/ft², where a new LEED Platinum building may have an EUI of 30 kBtu/ft². (Source: *Solar Today, March/April 2014*). For the purpose of this analysis, it had been assumed that the new DXATC building may have an EUI of between 50 and 90 kBtu/ft² and an average electrical consumption of around 5,000,000 kWh/y.

Figure 1 shows that the East wing of the building, which (in the current design plan) has no mechanical plant on the roof, would have a solar capacity of about 1,200 modules, or the equivalent of about 325 kW. About 5,400 ft² is set aside for roof terrace vegetation. The West wing, accounting for HVAC equipment and other 'obstacles', may have a solar capacity of about 700 modules, or about 175 kW.

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Figure 1

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The solar capacity can be extended by making use of car parking areas for solar canopies. In the current design example (which is subject to change), in the immediate vicinity of the 'phase I' building, there may be room for 5 or 6 canopies that have a capacity of about 200 kW (i.e. an approximate width of 40 ft and a length of 340 ft each).

Estimated Future Electrical Consumption	5,000,000 kWh/y	
East Wing Solar PV Capacity	325 kW (est. production 566,991 kWh/y)	11%
West Wing Solar PV Capacity	175 kW (est. production 305,303 kWh/y)	6%
Car Parking Canopies	1,200 kW (est. production 2,093,505 kWh/y)	42%
TOTAL	1,700 kW (2,965,799 kWh/y)	59%

If the future electrical consumption is about 5,000,000 kWh/y, a solar system on the east wing would offset about 11% of the average annual consumption. With solar on the west wing and car canopies as well, the solar PV offset could be up to 60% or so.

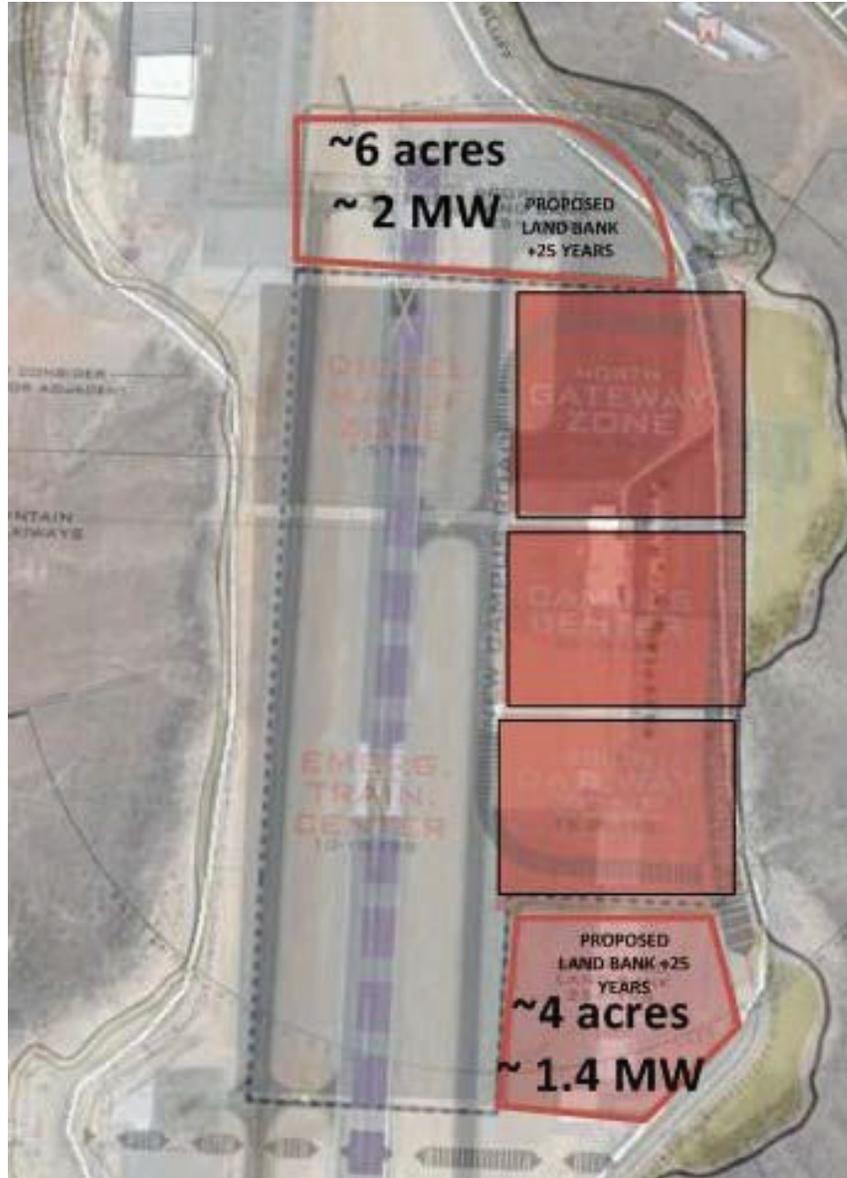
The cost per Watt of a low profile, ballasted roof mounted solar system, currently stands around \$2.50 /W_{DC}. Therefore the additional investment of the roof mounted system (total 500 kW) would be in the order of **\$1,250,000**. The investment cost could be mitigated via a third party investor Power Purchase Agreement, where the School would pay for every kWh produced, and not own the system outright.

The cost per Watt for solar parking canopies would be \$0.25 - \$0.50 higher, but again this system could be subject to a PPA contract.

The main obstacle in St George is that the Electrical Utility is not obligated to enter into a net metering & interconnection contract, which would be a requirement for a system of this size. Special Board approval would be required for a project as described above.

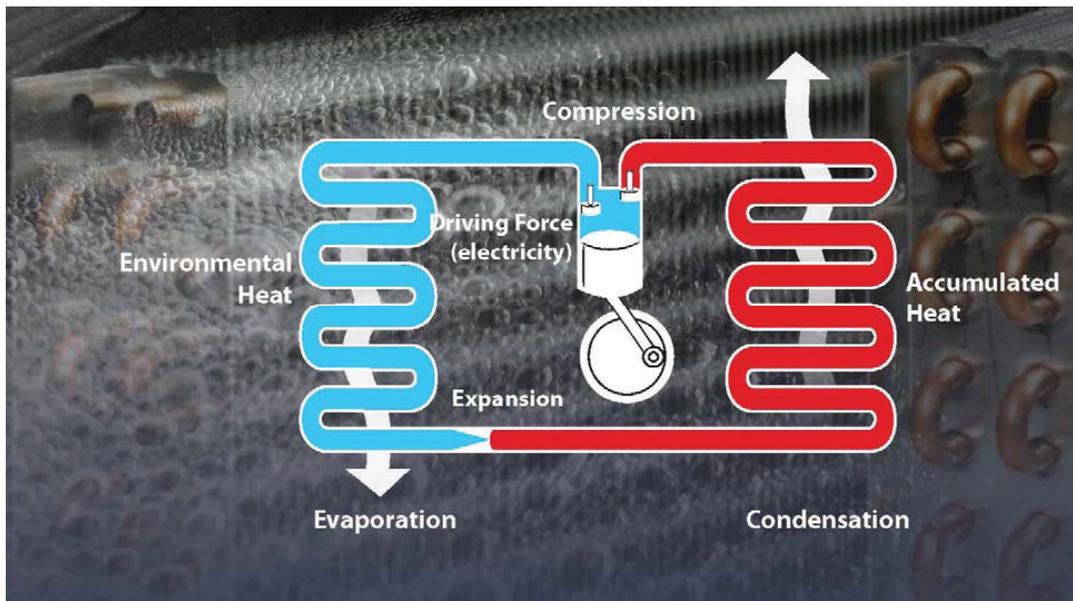
In the planning process, it would help if it would be considered to minimize the obstacles and shading on the roof and in the parking areas, as well as maximize the available roof space.

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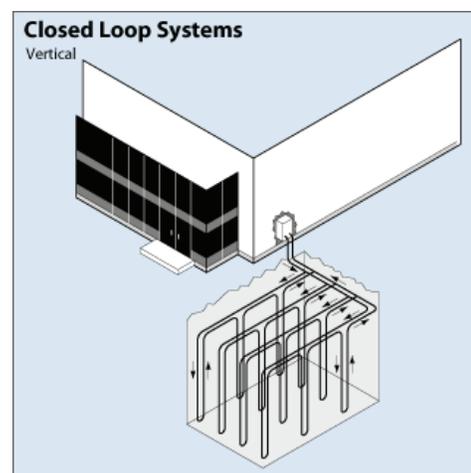
GROUND SOURCE HEAT PUMP



- A ground source heat pump can be used for heating and cooling
- A hybrid system, with a cooling tower and a boiler to manage peak cooling and heating loads, would lower the investment cost substantially.
- Floor heating (pipes embedded in the concrete floors) may be considered
- Hot water recovery could be used for kitchen and other hot water usage in the building

A ground source heat pump, with vertical well closed loop tubing system is already mentioned in the master plan, but has been included for completeness in this report.

A ground-source heat pump typically uses a closed-loop tube containing a mixture of water and glycol that receives and gives off heat quickly to the surrounding soil and groundwater, which remains at a constant temperature (say 53 degrees F). When heating the building, the glycol mixture absorbs the



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ground's warmth, before it is pumped back up and run through heat pumps in the mechanical room that warms 53° F fluid into 90° F fluid. In the winter, the system removes heat from the ground. In the summer, the system can be run in reverse, restoring this heat back into the ground. In this sense, the ground is used as a "battery" for heat.



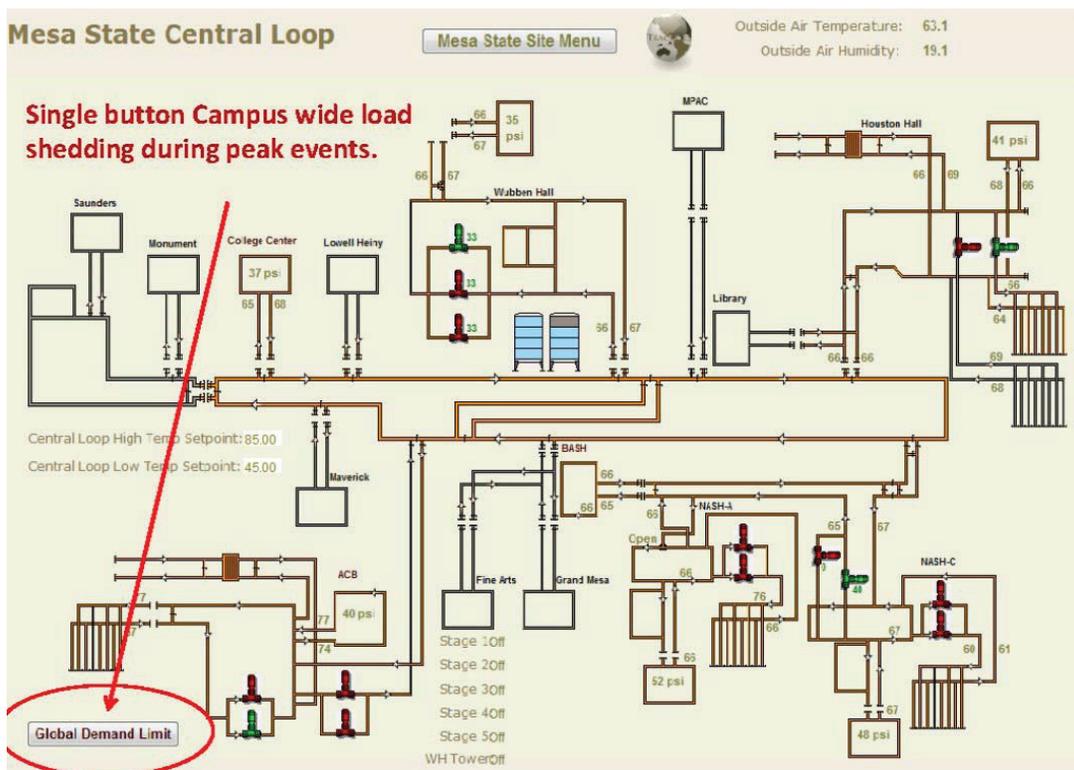
Typically, heat distribution pipes are embedded in the concrete floor during construction, as shown in this photograph.

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Mesa State Campus in Colorado is successfully operated on a ground source heat pump system. The Mesa State system is not entirely closed-loop: a boiler adds heat to the loop if necessary, and a cooling tower extracts heat from the loop in the summer (it is a so-called hybrid system).

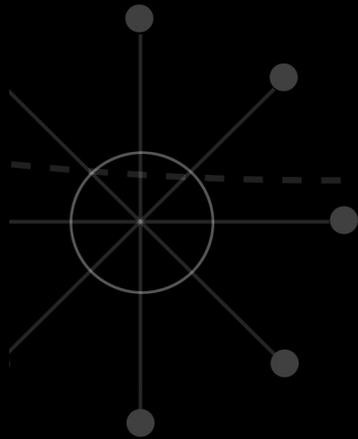
The investment cost depend on what percentage of operating hours is 'covered' with the heat pump system, and what method is used to install the closed loop tube system (deep wells, horizontal, other).

Setup costs are higher than for conventional systems, but the difference is usually returned in energy savings in 3 to 10 years, and even shorter lengths of time with federal, state and utility tax credits and incentives. Geothermal heat pump systems are reasonably warranted by manufacturers, and their working life is estimated at 25 years for inside components and 50+ years for the ground loop.



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