



Office of the City Manager

WORKSESSION

May 16, 2023

To: Honorable Mayor and Members of the City Council

From: Dee Williams-Ridley, City Manager

Submitted by: David Sprague, Fire Chief

Subject: Fire Department Facilities Master Plan

INTRODUCTION

The purpose of the Berkeley Fire Department (Department) Facilities Master Plan (FMP) is to provide City leaders with a ten-year strategic approach for addressing the City's aging, undersized, and outdated essential facilities to meet today's needs and anticipated demands on Berkeley's fire and emergency services. The FMP recommends a series of facility improvements necessary to support the Department's mission, comply with building codes and industry standards, and align with best practices in ways that are fiscally responsible in fulfilling the forward-looking mission of the Department.

CURRENT SITUATION AND ITS EFFECTS

Most of Berkeley's fire stations were built in the 1960's and received seismic upgrades in the 1990's. The Training Facility was built in 1996, the Public Safety Building in 2000, and Station 7 in 2006. Based on existing conditions assessments, the FMP team found that since their original construction, most Department facilities have undergone some modifications but not to the extent necessary to properly house modern apparatus, equipment, additional units and new staff, nor to meet current policy, codes and health, safety and inclusion standards. Additionally, many of the stations house outdated features (such as hose drying towers) and hinder healthy environmental practices (such as physical training in apparatus bays). Without further renovation, replacement or relocation, the stations will continue to fall short of addressing the present-day needs and expanding and changing operational demands.

Approach and Recommendations

The FMP team walked all ten properties used by the Fire Department and reviewed provided documentation relevant to the structures and programmatic needs. With each facility, the FMP team first sought the most fiscally conservative renovation approach to accommodate the evolving mission, changes to staffing and adoption of best practices at each site. When these planning priorities could not be met through renovation, the FMP team looked at accommodating operational needs with a new structure on either

existing or expanded sites. In instances where renovation or new construction on existing or expanded sites was not feasible, the team recommended relocation to a new site.

Fire Stations 3, 6, and 7 - RENOVATION AND EXPANSION

These stations and their sites are of a size and configuration that can be expanded and operationally upgraded in their current locations, substantially reducing project costs compared to new construction.

Fire Stations 2, 4, and 5 - REPLACEMENT ON SITE

These fire stations are too small for current and projected needs and require replacement to accommodate the expanded mission, increased staffing, larger and more apparatus and safe operating conditions. The existing sites of Station 2 and 5 are of ample size to accommodate new larger stations. The proposal at Station 4 includes an expansion into the adjacent roadway, yielding substantial cost savings over what would otherwise be incurred with relocation.

Fire Station 1 - RELOCATION

The current Station 1 building and site are too small to accommodate the increase in staffing and the new units needed within this response area. The existing and expanded Fire Station 1 units and operations are proposed to be relocated to a new site (yet to be identified) within the response area.

Fire Administration - RELOCATION

The administration functions including recently expanded staffing across most divisions, the newly established Wildland Urban Interface (WUI) Division, and the needed ambulance deployment center do not fit in the currently designated spaces within the Public Safety Building at 2100 Martin Luther King Jr. Way. This Master Plan includes a preliminary spatial program for a BFD Headquarters in a larger location.

Fire Training Center - RELOCATION

The existing Training Center on Cedar Street no longer supports the training needs of a modern fire department. The site is undersized and located in a residential neighborhood, which has created an untenable situation for neighbors and unrealistic limitations on the type of training events that can be conducted, the hours that training can occur, and the parking needs for trainers and trainees. BFD is currently collaborating with Albany, El Cerrito, and Richmond Fire Departments to identify appropriately sized and zoned sites that could be shared and would work for all jurisdictions. A portion of the current training site at Cedar Street will be used for the expansion of Station 6. The remaining training building could be modified for use as a

meeting hall and for staff accommodations during unplanned fluctuations in service demand due to emergencies such as wildfire urban interface fire events, extreme climate events, and seismic events.

Fire Warehouse - REMODEL

The existing Warehouse between Folger and Heinz, although small, remains useful as a central supply depot and overflow storage for reserve and specialty apparatus. A project is currently underway to add office space inside the warehouse to make the facility more usable.

BACKGROUND

The evolving and expanding mission of the Berkeley Fire Department has led to many changes within the Department's response and delivery since its founding in 1904. There have also been significant external changes within the larger firefighting community and the world. These operational changes include:

- Increased call volume from 6,300 annual calls in 1995 for structure fires and medical emergencies to 16,000 annual calls in 2022 for a broad range of emergencies. There have been recent further jumps in daily calls volume due to climate change induced extreme weather events.
- Apparatus have grown in size in order to accommodate firefighters and the equipment necessary to accomplish the modern all-hazards mission of the fire service. There has also been an increase in the type and number of units to include specialty units for wildland engines, ambulances, off road vehicles and boats.
- Best practices for fire stations have been updated to include fire station layouts that limit firefighters' exposure to carcinogens. This includes dedicated turnout and decontamination rooms, dedicated fitness rooms, airlock separation between apparatus bays and living quarters, and reorganized circulation.
- The City of Berkeley and the Department are dedicated to moving towards an all-electric infrastructure. Electrification of both the stations and the apparatus is a future goal of the Department to support the health of firefighters and the larger community.
- The diverse and inclusive workforce of the Department calls for increased privacy and accessibility within the stations. Gender neutral restrooms, single occupancy bedrooms, and dedicated offices for supervisors are needed. Accessibility laws also dictate that the stations be accessible for both the community and the firefighters.

These internal and external changes can no longer be accommodated within the existing fire stations and support facilities. The FMP outlines specific station needs and proposes modifications necessary to bring each of the stations into alignment with codes, industry standards, and the Department mission and culture.

ENVIRONMENTAL SUSTAINABILITY AND CLIMATE IMPACTS

Electrification of the Fire Fleet: The Department is actively researching electrification of its fleet to meet the City's long-term goals outlined in the Municipal Fleet Electrification Plan. According to current policy, any new construction in Berkeley is required to be all-electric. Going all-electric for buildings and the fleet will require significant revisions to the site power supply including:

- Changing the type of power entering the building (from single to three-phase in most instances)
- Increasing the electrical service to 800 or 1200 amps
- Installing solar arrays and energy storage systems

This move improves health and safety at stations and addresses environmental considerations by:

- Improving indoor air quality by eliminating natural gas (for heating and cooking) in the buildings
- Decreasing fossil fuel reliance and carbon pollution by providing electric charging stations for fire department vehicles and apparatus, and staff's personal electric vehicles
- Employing clean energy sources while the power grid is up and during emergencies when it is down.

Council will need to provide direction to Staff as to whether fire stations should be electrified prior to a full remodel or replacement. Costs associated with both electrification and the purchase of these types of apparatus will be significant. The cost to electrify the stations will be approximately \$500,000 each. Electrical apparatus is currently double the cost of a typical diesel-powered apparatus.

Operational Changes Secondary to Climate Change

According to a 2023 United Nations climate change report, human-caused climate change is already affecting weather and climate extremes in every region across the globe. These extreme events are leading to the increased demand for fire department services. The two weather events which are major contributors to increased call

volumes for the Department are wildfires and atmospheric rivers. Climate change projections predict that atmospheric rivers will become the main source of precipitation in western North America. This will lead to an even more pronounced “flood or drought” climate in California. The prevalence of major wildfires in drought years and the prevalence of ground saturation and flooding in wet years will impact the fire department.

The record-breaking call volume days of January 4th, 2023 and March 21-22, 2023 were both during an atmospheric river event. Moving forward the Department will need space to provide emergency accommodations for additional staff during these surges in demand

POSSIBLE FUTURE ACTION

Direction to pursue a bond measure to fund part or all of the proposed projects.

FISCAL IMPACTS OF POSSIBLE FUTURE ACTION

The budgets reflected below are known as an “Order of Magnitude Cost Plan.” As a perspective, an order of magnitude cost model has the objective of identifying costs within an order of magnitude. The budget is not meant to be the lowest possible, rather, to identify the order of Magnitude of costs in considering next steps. A range of costs was used for planning purposes. The ranges below do not include escalation beyond 2024, property acquisition costs nor program management costs. They include all construction, equipment and furnishings costs, plus fees for design, environmental review, permits, etc., associated with project delivery. In the recommended development phasing scenario, the initial focus is on the projects with highest call load and largest staffing numbers. Station 1 was proposed to be implemented first because it is a relocation project. Once a new Station One is complete and online, the existing original Station One can be used as temporary housing for the future replacement projects.

SEQUENCED PROJECTS

Design Start		Rough Order of Magnitude Costs	
		LOW x \$ Million	HIGH x \$ Million
2024	Fire Station 1 Relocation New site on/near San Pablo Ave	\$42	\$47
2026	Fire Station 2 Replacement Temporary Location - Station 1, 4, 5	\$51	\$56
2028	Fire Station 5 Replacement Temporary Location - Station 1, 4, 2	\$53	\$58
2030	Fire Station 4 Replacement Temporary Location - Station 2, 6	\$36	\$41

INDEPENDENT PROJECTS

Design Start		Rough Order of Magnitude Costs	
		LOW x \$ Million	HIGH x \$ Million
2023	New Headquarters Site TBD	\$33	\$36
2023	Training Center Phase 1 Renovation Phase 2 Replacement Regional Site TBD	\$81	\$90
2026	Fire Station 3 Renovation + Expansion Temporary Location - Station 2, 5	\$12.0	\$16
2028	Fire Station 6 Renovation + Expansion Temporary Location - Trailer on site	\$11.6	\$15
2030	Fire Station 7 Renovation + Expansion Temporary Location - TBD	\$10.0	\$13
TOTAL Rough Order of Magnitude Project Cost		\$330	\$372

CONTACT PERSON

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Attachments:

- 1: Berkeley Fire Facilities Master Plan Volume I (Report)
- 2: Berkeley Fire Facilities Master Plan Volume II (Station Layout/Design)
- 3: Berkeley Fire Facilities Master Plan Volume II (Mixed-Use Fire Station Case Studies)
- 4: Berkeley Fire Facilities Master Plan Presentation



CITY OF BERKELEY

BERKELEY FIRE DEPARTMENT MASTER PLAN

VOLUME I

DRAFT MAY 08, 2023



SIEGEL & STRAIN Architects |

 **MARY MCGRATH | ARCHITECTS**



The Berkeley Fire Department protects life, property, and the environment through emergency response, prevention, and community preparedness.

In 1877, the year before Berkeley incorporated as a town, several West Berkeley residents banded together to form a volunteer hose-and-bucket brigade. On August 21, 1882, the Berkeley Board of Town Trustees officially recognized Beacon #1 Fire Company as the Volunteer Fire Department. A 1,000-pound bell was installed in the nearby Church of the Good Shepherd tower to serve as both a church bell and fire alarm. The Town Trustees established the Paid Fire Department on October 1, 1904. James Kenney was appointed the first fire chief. Ironically, Town Hall burned down on October 22, just a few weeks later, after attic wires sparked a blaze.

For over 100 years the Berkeley Fire Department organization has built an unmatched legacy of trust in the community. The core of the Department's strength comes from its members' fundamental commitment to excellent customer service, high professional standards and their commitment to one another.

Today, the Department provides 24-hour response to emergencies including fires, medical emergencies, hazardous materials events, technical rescue, utility emergencies, water rescue, disaster response, active shooter, vehicle extrication, and other life-threatening situations.



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A. BFD MASTER PLAN EXECUTIVE SUMMARY





A. EXECUTIVE SUMMARY

THE PURPOSE OF THE BERKELEY FIRE DEPARTMENT MASTER PLAN (FDMP) is to provide City leaders with a ten-year strategic approach for addressing the City's aging, undersized, and outdated essential facilities to meet today's needs and anticipated demands on Berkeley's fire and emergency services. The Berkeley Fire Department Master Plan recommends a series of facility improvements necessary to support its mission, comply with building codes and industry standards, and align with best practices in ways that are fiscally responsible in fulfilling the forward-looking mission of the Berkeley Fire Department.

THE EVOLVING AND EXPANDING MISSION of the Berkeley Fire Department has led to many changes within the Department's response and delivery since its founding in 1904. The range of operational factors facing the larger firefighting community and the world, and within BFD has increased significantly over time. These operational changes include:

- > Increased local call volume from 6,300 annual calls in 1995 for structural fires and medical emergencies to 16,000 annual calls in 2022 for a broad range of emergencies. The volume of daily calls in one 24-hour period in March 2023 due to an extreme weather event was 292 calls, compared to an average of 44 daily calls in 2022.
- > Apparatus have grown in size in order to accommodate firefighters and the equipment necessary to accomplish the modern all-hazards mission of the fire service. The type and number of specialty units, such as those for wildland engines, ambulances, off-road vehicles and boats, has also increased.
- > Best practices for fire stations have evolved to include space layouts that limit firefighters' exposure to carcinogens. This includes dedicated turnout and decontamination rooms, dedicated fitness rooms, airlock separation between apparatus bays and living quarters, and reorganized circulation.
- > The City of Berkeley and the BFD are dedicated to moving towards an all-electric infrastructure. Electrification of both the stations and the apparatus is a future goal of the Department to support the health of firefighters and the larger community, and to reduce carbon emissions.
- > The diverse and inclusive workforce of the Department calls for increased privacy and accessibility within the stations. Gender neutral restrooms, single occupancy bedrooms, and dedicated offices for supervisors are needed. Americans with Disability Act (ADA) and other local laws also dictate that the stations be accessible for both the community and the firefighters.

These internal and external changes can no longer be accommodated within the existing fire stations and support facilities. Volume II of this Master Plan outlines specific station needs and proposes modifications necessary to bring each of the stations into alignment with codes, industry standards, and the Berkeley Fire Department mission and culture.

FACILITIES EXISTING CONDITIONS: Most of Berkeley's fire stations were built in the 1960's and received seismic upgrades in the 1990's. The Training Facility was built in 1996, the Public Safety Building in 2000, and Station 7 in 2006. Based on existing conditions assessments, the FDMP team found that since their original construction, most BFD facilities have undergone some modifications but not to the extent necessary to properly house modern apparatus, equipment, additional units and new staff, nor to meet current policy, codes and health, safety and inclusion standards. Additionally, many of the stations house outdated features (such as hose drying towers) and hinder healthy environmental practices (such as physical training in apparatus bays). Without further renovation, replacement or relocation, the stations will continue to fall short of addressing the present-day needs and expanding and changing operational demands.

BFD is approaching an acute situation of not being able to meet the expressed needs of the community due to a lack of adequate facility space.



Site Name	Address
FIRE STATION 1	2442 Eighth St
FIRE STATION 2	2029 Berkeley Way
FIRE STATION 3	2710 Russell St
FIRE STATION 4	1900 Marin Ave
FIRE STATION 5	2680 Shattuck Ave
FIRE STATION 6	999 Cedar St
FIRE STATION 7	3000 Shasta Rd
DIVISION OF TRAINING	997 Cedar St
FIRE ADMIN OFFICES	2100 MLK Jr Way
WAREHOUSE	1011 Folger Ave

MASTER PLAN SITES: The FDMP scope includes ten (10) properties used by the Berkeley Fire Department:

- > Seven (7) fire stations
- > Division of Training
- > Headquarters
- > Warehouse on Folger/Heinz

APPROACH AND RECOMMENDATIONS: The FDMP team walked all ten properties used by the Fire Department and reviewed provided documentation relevant to the structures and programmatic needs. With each facility, the FDMP team first sought the most fiscally conservative renovation approach to accommodate the evolving mission, changes to staffing and adoption of best practices at each site. When these planning priorities could not be met through renovation, the FDMP team looked at accommodating operational needs with a new structure on either existing or expanded sites. In instances where renovation or new construction on existing or expanded sites was not feasible, the team recommended relocation to a new site.

Fire Stations 3, 6, and 7 - RENOVATION AND EXPANSION

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Fire Administration - RELOCATION

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The existing Training Center on Cedar Street no longer supports the training needs of a modern fire department. The site is undersized and located in a residential neighborhood, which has created an untenable situation for neighbors and unrealistic limitations on the type of training events that can be conducted, the hours that training can occur, and the parking needs for trainers and trainees. BFD is currently collaborating with Albany, El Cerrito, and Richmond Fire Departments to identify appropriately sized and zoned sites that could be shared by the jurisdictions. A portion of the current training site at Cedar Street will be used for the expansion of Station 6. The remaining training building could be modified for use as a meeting hall and for staff accommodations during unplanned fluctuations in service demand due to emergencies such as wildfire urban interface fire events, extreme climate events, and seismic events.

Fire Warehouse - REMODEL

The existing Warehouse located at 1011 Folger, although small, remains useful as a central supply depot and overflow storage for reserve and specialty apparatus. A project is currently underway to add office space inside the warehouse to make the facility more usable.

B. BFD MASTER PLAN BACKGROUND





B. BFD MASTER PLAN BACKGROUND

In 2021, the Berkeley Fire Chief and the Public Works Director, both new to their positions, realized that there was not a long-term plan that evaluated the current state of Fire Department facilities or provided a roadmap for known or projected renovation or replacement. They identified the need to create a Fire Department Master Plan (FDMP). This plan is one of five foundational studies that the Berkeley Fire Department (BFD) has undertaken over the last few years which collectively aim to provide a clear set of priorities that the City can use over the next years to guide improvements. The other foundational efforts are:

Berkeley's Community Wildfire Protection Plan (CWPP), initiated in 2022, will organize a community's efforts to protect itself from wildfire, and empower citizens to move in a cohesive, common direction. This includes goals for improving wildfire response, community preparedness, fuel management, infrastructure, ignition reduction, home hardening, and more. The CWPP draft plan is currently under review with a final plan to be adopted in spring of 2023.

Standards of Coverage and Community Risk Assessment Study (SOC), conducted in 2022-2023 defined appropriate levels of service based on a comprehensive analysis of a number of factors: historical performance; expectations; existing and projected community risk factors, hazards, population growth and aging, topography, the density and vertical growth of the build environment; and performance as compared to national standards and best practices. The report outlines five strategies to improve acute emergency response time, four of which have spatial implications for the fire stations that have been addressed by the FDMP. These include: increase in the number of ambulances; creation of a Mobile Integrated Paramedic (MIP) program; increase of staffing on key engines; and addition of a second Battalion Chief.

Internal Berkeley Fire Department Reorganization, which started in 2015, is a comprehensive re-organization of the Department designed to result in a more efficient response system, strengthen the existing culture that is community and employee centric, create pathways from the community to career positions, and build an organization that is better able to respond to the changing needs and risk of our community. These priorities are accounted for in the FDMP by proposing reconfigurations to stations to better serve both the community and the BFD.

Dispatch Needs Analysis (DNA), in December of 2021 the Department contracted with Federal Engineering Inc. to conduct a comprehensive needs assessment of the Berkeley Communications Center in response to City Council's request to enhance operations to meet the community's growing needs under the omnibus reimagining package. The project will examine existing dispatch capabilities and the City's goals to develop a path forward on how to triage calls, divert non-emergency calls—including mental health calls—to appropriate resources, and implement the delivery of emergency medical instructions to callers. Federal Engineering Consultants' work will result in a wide-ranging plan that recommends adjustments to staffing, hardware and software, implementation of pre-arrival and emergency medical dispatch systems, diversion of sub-acute calls to the most appropriate resource, training for dispatchers, and dispatch center facilities.

B. BFD MASTER PLAN BACKGROUND

Kitchell Facilities Condition Assessment, completed in August of 2021, documents the existing conditions of the ten BFD facilities owned by The City of Berkeley. The object of the assessment was to understand the deficiencies of the buildings, proposed maintenance and corrections, and create budgets for the work at each facility. The assessment report also includes a facility condition needs index that is accounted for in the FDMP.

Each of these four studies articulate goals and aspects that impact BFD facilities and, as such, have influenced the Berkeley Fire Department Facilities Master Plan and its planning process.



C. FACILITIES MASTER PLAN PURPOSE & GOALS

THE PURPOSE of this Fire Department Master Plan (FDMP) is to provide the City of Berkeley leaders and policy makers with a multi-year strategic approach for addressing the City's aging, undersized, and outdated essential facilities to meet today's needs and anticipated demands on Berkeley's fire and emergency services.

The FDMP recommends a series of renovations and replacement of the Fire Department's critical facilities needed to support its mission, comply with building codes and industry standards, and align with best practices in ways that are fiscally responsible and fulfill the forward-looking mission of the Berkeley Fire Department.

As a planning tool, this document is meant to help prioritize and inform capital improvement decisions necessary for the City to develop a funding and implementation plan.

SPECIFIC PLANNING GOALS for Fire Department Master Plan focus on:

1. Improving, expanding and/or replacing each of the City's fire stations so that they support current fire operations and have flex capacity as the mission of the fire service evolves both in day-to-day call volume and in the event of major disasters.
2. Integrating improved health, safety and personnel needs of the first responders, including reduced exposure to carcinogens, into the design and operations of Fire Department facilities.
3. Relocating current and expanding Fire Department Headquarters functions to a facility that can accommodate growing needs including: a fully functional office setting for fire department support; an Emergency Operations Center (EOC) which can be used as a conference room or classroom outside of emergency conditions; and a deployment center for additional ambulances.
4. Identifying a suitable location for the delivery of future proposed integrated community health programs which provide resources for the under-insured and other high-volume system users that require services other than ambulance trips and emergency room visits.
5. Developing facilities improvement proposals that are adequate and appropriate in meeting and not exceeding established needs through renovation where feasible, or relocation or replacement where renovation is not feasible. The development improvements must demonstrate the trust the Fire Department has established with the community and be respectful of the public funds.

D. OPERATIONAL CHANGES

EVOLVING BERKELEY FIRE DEPARTMENT MISSION

1980	1990s	2000	2010	2015-2020
Structure Fires (Low Rise)	Structure Fires	Structure Fires	Structure Fires	Structure Fires
Fire Prevention	Fire Prevention	Fire Prevention	Fire Prevention	Fire Prevention
	Emergency Medical	Emergency Medical	Emergency Medical	Emergency Medical
	Disaster Preparedness	Disaster Preparedness	Disaster Preparedness	Disaster Preparedness
	Hazardous Materials	Hazardous Materials	Hazardous Materials	Hazardous Materials
	Wildland Firefighting	Wildland Firefighting	Wildland Firefighting	Wildland Firefighting
		Weapons of Mass Destruction	Weapons of Mass Destruction	Weapons of Mass Destruction
		Vehicle Extrication	Vehicle Extrication	Vehicle Extrication
		Technical Rescue	Technical Rescue	Technical Rescue
			Active Shooter	Active Shooter
			Water Rescue Swimmer	Water Rescue Swimmers
				Routine Urban Interface Firefighting
				Vocational Education
				Boat Operations
				Pandemic Response
				Community Response Medicine
				EV Fires & Battery Management
				HighRise/Tall Building Firefighting

The Berkeley Fire Departments mission and responsibilities have evolved and expanded over the last 50 years.



D. OPERATIONAL CHANGES

BFD is approaching an acute situation of not being able to meet the expressed needs of the community due to a lack of adequate facility space required to accommodate a number of operational changes. Only few of these needs have been properly considered or addressed in the Department's budget or space allocations. This Master Plan chapter documents the drivers behind the space needs, and Volume II documents high-level space plans that address these needs.

EVOLVING MISSION: The work of fire departments is constantly evolving and expanding. In most fire departments today, putting out fires is just a small part of a day's work. External and internal factors alike have influenced the arc of BFD's evolving mission.

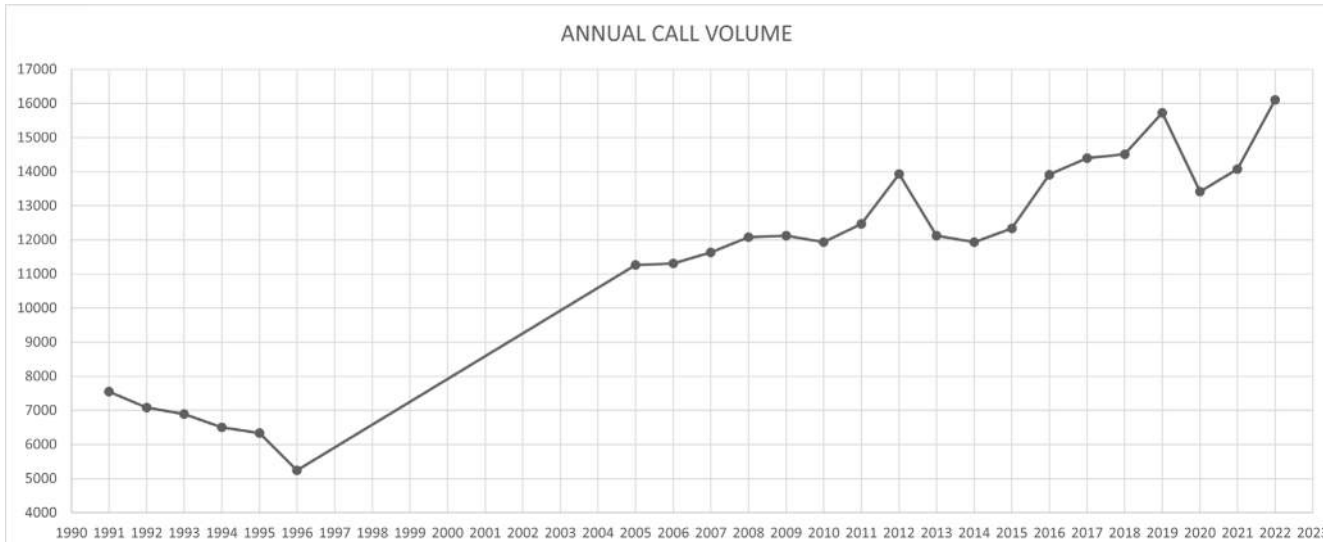
Over the years well-intentioned fire administrators and firefighters alike have seen a natural logic in tasking themselves with response capabilities motivated by the instinct to be ready to mitigate anything life throws at the Berkeley community. In the 1970s doctors home from the war in Vietnam introduced emergency medicine into firefighting. Hazardous materials response emerged in the 1990s. BFD's water rescue unit emerged from the bottom up in the early 2000's when firefighters jumped in the Bay in their underwear to rescue a drowning civilian. The number of specialty disciplines that BFD has taken on since with little to no training or infrastructure support is simultaneously impressive and staggering. While firefighters are now properly cross-trained, the stations do not have adequate space or support functions to accommodate these specialty first responder units and the added apparatus, equipment, personnel, and training requirements that come with.

This ever-expanding mission increase can be problematic, stretching resources thin and diluting firefighters' ability to be proficient at any discipline. Nonetheless, adding these disciplines to the Fire Department's scope makes sense from a service model and fiscal perspective. The alternative would likely require establishing a new department or division, adding even more staffing and infrastructure needs.

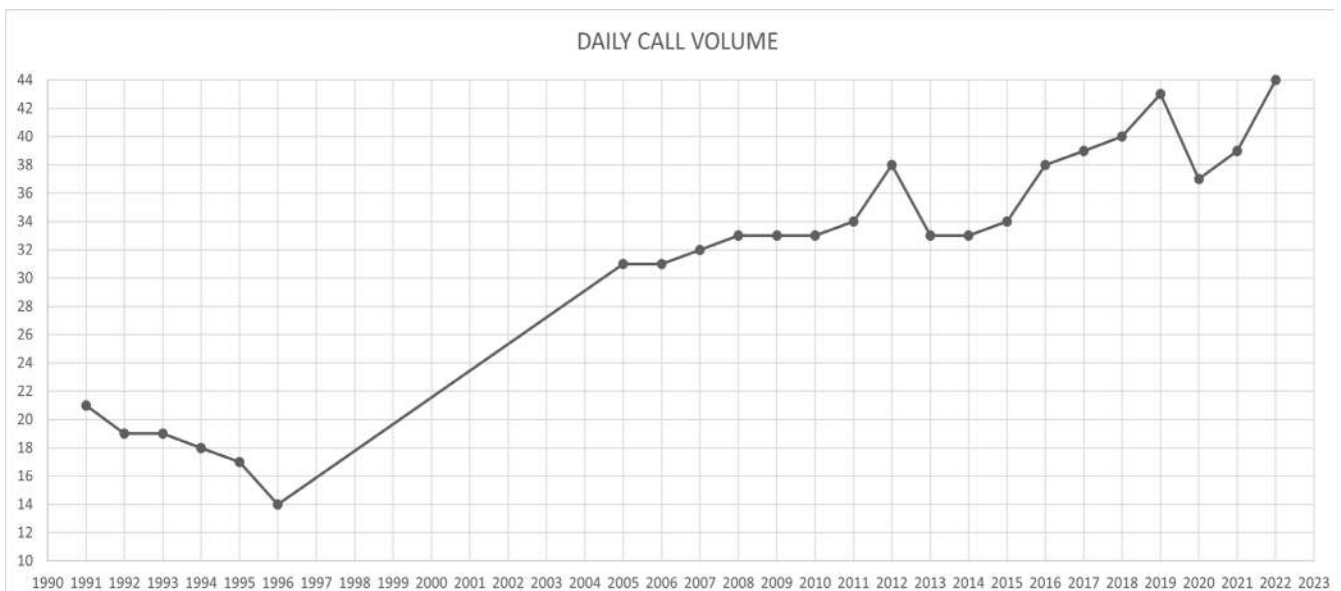
The ripple effect this evolution of BFD's mission has had on all aspects of the organization is substantial: an increase in specialized types of apparatus and equipment; more equipment on apparatus and a reciprocal increase in apparatus size; more on-duty staff to dispatch and respond to emergencies; more support staff to conduct plan checks and to educate residents in prevention, disaster preparedness and enhanced wildfire safety; and expanded training to cover more area-specific hazard types. All of these mission-critical aspects have space implications.

D. OPERATIONAL CHANGES

CALL VOLUME: Since its establishment in 1904, the Berkeley Fire Department (BFD) has evolved to respond to all manner of emergencies and hazards. Using call volume as a key metric for assessing fire department needs, in 1995 the BFD responded to 6,300 annual calls-for-service, mostly structure fires and medical emergencies. In 2022 the annual call volume was over 16,000 calls – or an average of 44 calls a day – for a much broader range of emergencies compared to prior years.



Daily call volume, which also drives the staffing required in the firehouses, has also recently experienced dramatic fluctuations due to extreme weather conditions and climate change, which is an emerging risk. BFD recently set two daily records: on January 4, 2023, the Department received 80 calls, nearly double the daily average; and less than three months later the Department received a dramatic 292 calls for service spanning a 24-hour period between March 21 to 22, demonstrating that demand for BFD services is ever-evolving and consistently trending higher.



EXTREME WEATHER EVENTS: According to a 2023 United Nations climate change report, human-caused climate change is already affecting weather and climate extremes in every region across the globe. These extreme events are leading to the increased demand for fire department services. The two weather events which are major contributors to increased call volumes for the BFD are wildfires and atmospheric rivers. Climate change projections predict that atmospheric rivers will become the main source of precipitation in western North America. This will lead to an even more pronounced “flood or drought” climate in California. The prevalence of major wildfires in drought years and the prevalence of ground saturation and flooding in wet years will impact the fire department.

The record breaking call volume days of January 4th, 2023 and March 21-22, 2023 were both during an atmospheric river event. Moving forward the BFD will need space to provide emergency accommodations for additional staff during these surges in demand.

RESPONSE AND DELIVERY CHANGES: The City has changed substantially over the last 20 years, transitioning from a suburban, mostly single-story, single-family residential community to a dense, urban, vertically-oriented community. Berkeley is now the second most dense city of the top 51st most populated cities in California, behind San Francisco.

The Standards of Coverage (SOC) analysis prepared by Citygate observed “... *that the Department is organized only to accomplish ‘yesterday’s mission’ and is struggling to meet current demand, much less the future growth of the City and University.*” Relative to the FDMP, the SOC goes on to explain that “*The ongoing intensification of land uses, building heights, and population density will make several sections of the City very urban—typical of the largest metropolitan cities for building fire and rescue/EMS challenges. The cumulative effect of these projects around the City necessitates a shift in staffing and response models as well as an increase in the flexibility of emergency medical resources. The City’s fire and ambulance programs must evolve to those suitable for a major urban fire department in staffing, unit types, and facility locations. Citygate acknowledges this will not only be costly but also very difficult to find new locations for responders.*”

Changes in local policies have also driven increases in density and vertical orientation of the City and committed the City to providing services to the unhoused and to those with psychiatric emergencies. However, there have not been correlating modifications to the Fire Department facilities or staffing over that same period of time to address these changes. As a result the City, including the Fire Department, is now faced with a large, acute gap between community need and service expectation, and what the Department’s infrastructure can accommodate.

RECOMMENDATIONS FROM RECENT EFFORTS: The Standards of Coverage study, the re-shaping of the organization following the passage of Measure FF, the implementation of the department reorganization, and the Dispatch Needs Analysis have spatial repercussions on stations and administration headquarters, the most significant being:

- > Adding ambulances to recover and maintain Unit Hour utilization and response times.
- > Adding a Mobile Integrated Health program similar to the Department’s pilot Mobile Integrated Paramedic (MIP) program.
- > Deploying the Wildfire Urban Interface (WUI) Division.
- > Adding staff to support the modern mission of the Divisions of Training, Emergency Medical Services (EMS) and Fire Prevention.
- > Increasing the size of the dispatch center for triaging increased call volume, appropriately handling calls for psychiatric emergencies, and delivering pre-arrival instructions.
- > Adding a future Battalion Chief.

D. OPERATIONAL CHANGES

- > Increasing full-time staff on six of nine fire companies from three to four personnel (and the remaining three companies from three to four personnel during high-fire danger days) to address changing risk and demand arising from new development in Berkeley and the implications of climate change on our natural environment.



APPARATUS AND SPECIALTY UNITS: To support the evolving mission and modern safety regulations, BFD apparatus have grown in size. In the past, fire department personnel rode on the rear tailboard of an engine, uncovered and unprotected, causing hundreds of firefighter injuries and deaths across the country. In addition to firefighters moving inside the cabs, apparatus have also grown in size to accommodate all the equipment necessary to accomplish the modern all-hazards mission of the fire service. Other specialty apparatus acquired to accommodate BFD's mission includes wildland engines, ambulances, off-road vehicles and boats, all of which need proper storage and maintenance facilities.

ELECTRIFICATION: The Department is actively researching electrification of its fleet to meet the City's long-term goals outlined in the Municipal Fleet Electrification Plan. According to current policy, any new construction in Berkeley is required to be all-electric. Going all-electric for buildings and the fleet will require significant revisions to the site power supply including:

- > Changing the type of power entering the building (from single to three-phase in most instances)
- > Increasing the electrical service to 800 or 1200 amps
- > Installing solar arrays and energy storage systems

This move towards electrification improves health and safety at stations and addresses environmental considerations by:

- > Improving indoor air quality by eliminating natural gas (for space and water heating, and cooking) in the buildings
- > Decreasing fossil fuel reliance and carbon pollution by providing electric charging stations for fire department vehicles and apparatus, and staff's personal electric vehicles
- > Employing clean energy sources while the power grid is up and during emergencies when it is down

City Council will need to provide direction to BFD as to whether fire stations should be electrified prior to a full remodel or replacement. Costs associated with both electrification and the purchase of these types of apparatus will be significant. The cost to electrify the stations will be approximately \$400,000 each. Electrical apparatus are currently double the cost of a typical apparatus.



DECONTAMINATION: Significant health and safety concerns related to carcinogens from turnout gear and equipment, and the overall air quality at fire stations have long been identified as unsafe. Research spanning decades, continents, and more than 80,000 firefighters validates the connection between fire fighting and occupational cancer. Cancer is the most dangerous threat to firefighter health and safety today. The Department currently has five members with active cancer cases and five recent retirees with active cancer cases. These are only the reported cases and there are likely more which have not been reported.

- > Cancer caused 66 percent of the career firefighter line-of-duty deaths from 2002 to 2019, according to data from the International Association of Firefighters (IAFF). Heart disease caused 18 percent of career LODDs for the same period.
- > Cancer caused 70 percent of the line-of-duty deaths for career firefighters in 2016 (Smith, Cardiovascular Strain of Fire fighting and the Risk of, 2016).
- > Firefighters have a 9 percent higher risk of being diagnosed with cancer and a 14 percent higher risk of dying from cancer than the general U.S. population, according to research by the CDC/National Institute for Occupational Health and Safety (NIOSH).

Firefighters' risks are significantly higher for some types of cancer than the general population, including:

- > Testicular cancer – 2.02 times the risk (100% = double = 2 times)
- > Mesothelioma – 2.0 times greater risk
- > Multiple myeloma -1.53 times greater risk
- > Non-Hodgkin's lymphoma – 1.51 times greater risk
- > Skin cancer – 1.39 times greater risk
- > Malignant melanoma – 1.31 times greater risk
- > Brain cancer -1.31 times greater risk
- > Prostate cancer – 1.28 times greater risk
- > Colon cancer -1.21 times great risk and
- > Leukemia – 1.14 times greater risk

Industry standards call for each structure/vehicle fire to be treated like a hazardous materials incident, including recommendations for firefighters to literally wash each other with special soap to remove carcinogens and to be placed out of service for additional decontamination measures following the incident. Personal Protective Equipment (PPE) needs to be properly bagged and decontaminated, and stations need facilities to keep PPE isolated from physical fitness and living areas as this equipment continues to off gas carcinogens and other toxins.

D. OPERATIONAL CHANGES

To reduce the prevalence of cancer in the workforce, best practice recommendations that the City must begin to implement are:

- > Dedicated turnout rooms with personnel decontamination and turnout cleaning facilities
- > Reorganized path of travel to and from the apparatus bay for decontamination between each call, setting up what is referred to as the “Hot, Warm and Cool” zone organization.
- > Hands-free medical cleanup facilities
- > Dedicated physical fitness rooms not in apparatus bays
- > Airlock air separation between apparatus bay and the stations’ living and office quarters
- > Direct capture or similar vehicle exhaust systems in apparatus bays, an effort that was implemented in 2001

INCLUSION & PRIVACY CONSIDERATIONS: The fire service is a community-based organization and as such it is critical that the BFD staff reflects the makeup of the community it serves. This commitment to inclusion drives changes to the work environment and the facilities necessary in creating a safe workplace for a diverse workforce by increasing privacy and accessibility in living and office environments. Specific improvements include:

- > Gender neutral restrooms
- > Single occupancy bedrooms
- > Dedicated Captains’ offices
- > Accessible accommodations





E. EXISTING FACILITIES

ORIGINAL CONSTRUCTION: Most of the Berkeley Fire Stations were built in the 1960's. The Training Facility was built in 1996, the Public Safety Building in 2000, and Station 7 in 2006.

The stations built in the 1960's were designed for a single engine and three personnel per shift. Additionally, at the time of original construction, each station design and site layout offered very little room for expansion or to accommodate future needs and an evolving mission.

FACILITIES MODIFICATIONS: While the stations have not been significantly modified since they were built, they have been stretched to perform beyond their original design by simply squeezing in additional needs and services. Since their original construction in the 1960s, the older stations have been renovated to accommodate:

- > Three ambulances when the service was established in 1977
- > Two reserve ambulances and additional equipment when paramedic services were established in 1986
- > Improved building seismic performance in the 1990s, following the 1986 Loma Prieta Earthquake
- > Hazardous Materials Response apparatus and equipment in the 1990s
- > A fourth ambulance and additional reserve ambulances in 2008 to partially meet increased call volume
- > Water rescue apparatus and equipment in 2010
- > Specialty wildfire apparatus and equipment over the past thirty years
- > Disaster response supplies and equipment in the 1990s and 2000's
- > A mobile emergency medical supervisor vehicle and staff in 2023

While the stations have undergone minor improvements and ongoing maintenance including, for example, lighting, kitchen and restroom upgrades, they have not been modified to the extent necessary to properly house modern apparatus and equipment, additional units and new staff. These expanded services have been accommodated by simply pushing the stations beyond their spatial capacity at the expense of properly addressing safety, health, and privacy (related to inclusion and diversity) protocols.

OUTDATED FACILITIES: As a result, the BFD stations are packed, outdated and potentially unsafe.

- > Apparatus are parked inches away from roll up doors, creating narrow spaces for personnel to circulate.
- > Towers, once necessary for drying cotton hoses, are now obsolete due to updated hose material technology.
- > Exercise equipment is typically set up in apparatus bays adjacent to apparatus and personal protective equipment (or PPE) that off-gas diesel fumes and known carcinogens.



E. EXISTING FACILITIES

In 2021 the Berkeley Public Works Department, which is responsible for Berkeley public facilities maintenance, authorized Kitchell to prepare Facility Condition Assessments of each of the Stations and the Public Safety Building. The report found that in the short-term Fire Stations 1, 4, and 7 are in good condition, Fire Stations 2, 3, and 5 are in fair condition, and Fire Station 6 is in poor condition. In the longer-term Fire Station 1 will be in fair condition, Fire Station 7 will remain in good condition, and the rest will be in poor condition, meaning that in 15 years the bulk of the fire stations will be in poor condition.

Given the limited expansion space in stations and the fact that most Berkeley fire stations do not meet health and safety protocols or industry standards, many of the facilities are in need of major overhauls. Based on existing conditions and needs assessments, most BFD facilities are currently at or beyond capacity. Without significant expansion and modifications, they cannot be made hazards-ready nor can they support the evolving inclusive culture of the Berkeley Fire Department. Renovation or replacement or relocation is necessary to accommodate identified staffing and operational needs. Volume II of this Master Plan outlines specific station needs and proposes modifications necessary to bring each of the stations into alignment with codes, industry standards, and the Berkeley Fire Department mission and culture.



Turnouts, exercise equipment, and apparatus all in the same space do not meet current best practices.



F. METHODOLOGY

MASTER PLANNING TEAM: The Fire Department Master Plan (FDMP) effort has relied on a close working relationship with the Fire Chief, members of the command team and members of IAFF Local 1227. The consultant team includes:

- > Architects with expertise in fire department facilities planning and design
- > Economic planner who investigated mixed use facilities combining fire stations with residential uses
- > Design specialists on the programming and conceptual design development of a regionally shared training facility

MASTER PLANNING SCOPE: The FDMP effort began in earnest in Feb 2022 and included the following tasks:

- > Collecting and reviewing the provided existing construction documents for each station
- > Visiting each site
- > Conducting a kick-off meeting with Fire Department representatives
- > Documenting the fire department's spatial program needs
- > Developing alternative layouts for each station, with the goal of reusing, renovating and/or adding to existing buildings and sites. Where renovation and reuse options did not achieve the requisite goals of improved health, safety, and service, the planning team studied replacement options.
- > Preparing high-level construction cost estimates
- > Exploring implementation and phasing scenarios to determining how improvements might roll out

KEY TAKEAWAYS:

Primary findings thus far are that all uses fundamental to fire fighting, emergency medical service, training, rescue and prevention can be accommodated at the planned stations (including specialty units at a few specific stations), headquarters, and training center.

Given space constraints at the station sites, all new ambulances and integrated mobile health programs (MIP or similar) could not be accommodated at the stations without significant expansion which would substantially increase costs at each facility. Therefore, the FDMP team proposes that this service be part of a new BFD Headquarters.

Reserve apparatus are currently proposed by this master plan as stored outdoors at some of the fire stations which is not optimal. Ideally these apparatus would be stored indoors at a centrally located warehouse, which would free up more space at the fire stations and allow for more efficient maintenance regiment.

Adequate onsite parking for first responders' private vehicles during shift changes was a major design driver in the site plans and station design options. Adequate onsite parking for first responders' private vehicles is necessary at each site because most employees commute from outside the Bay Area from locations that lack mass-transit options. Once at work, often responders are required to move from one station to another with a hundred pounds of safety equipment in tow.

VOLUME II of this report outlines in greater detail the implications of these findings at each station, BFD Headquarters and the Training Center.

G. APPROACHES TO IMPROVEMENTS





G. APPROACHES TO IMPROVEMENTS

RENOVATION APPROACH: For each station, the FDMP team first sought a renovation approach to accommodate the evolving mission, changes to staffing, and the adoption of best practice environmental controls by providing:

- > Private sleeping rooms for all on-duty staff
- > Gender-neutral restrooms
- > Dedicated turnout storage and decontamination spaces
- > Dedicated Fitness Room apart from the apparatus bay and vehicle exhaust
- > Office space for on-duty supervisor(s)
- > Increased size of common spaces – kitchen, dining and day rooms – to accommodate added staff
- > Clear and safe paths of travel throughout stations
- > Additional apparatus bays for future units at Stations 1 and 4
- > Sufficient parking for staff
- > Appropriate facilities for electrification of the fleet (solar, charging, storage, transformers, etc)

REPLACEMENT APPROACH – NEW CONSTRUCTION: When the aforementioned priorities could not be accommodated through renovation, the team then looked at accommodating all the operational needs in new structures on either existing, expanded or new sites.

MIXED USE CASE STUDY: The Fire Department leadership team had hoped that with the City’s goals of increasing density and affordable housing, fire stations could be rebuilt along with residential units to maximize city property that is centrally located and close to transit hubs. To research this concept, economics planner Strategic Economics researched three mixed-use projects which combined housing and fire stations on a single site. The case study sites are:



Fire Station 13, San Francisco, CA



Potomac Yard, Alexandria, VA



Lincoln Towers, Wilmington, DE

Mixed Use Case Studies Findings: The major takeaway from these mixed-use case studies is that combining housing and fire services on the same property is not a common development approach and for good reason. California’s seismic building codes are extremely stringent for public safety buildings making them difficult to pair with other uses. Given the costs associated with the seismic safety requirements for fire stations and other public uses, pairing affordable housing with a fire station is not cost-effective in Berkeley.

G. APPROACHES TO IMPROVEMENTS

Where this was attempted locally in San Francisco for Station 13 located at 530 Sansome Street, the residential component is a luxury hotel plus commercial uses. These non-fire station uses were designed to be separated and independently structured from the fire station by cantilevering the building that housed them over the station. This solution is only financially viable due to its location in San Francisco's financial district where the private development will generate enough value to pay for extra construction costs without impacting the rates of return. The land value in Berkeley is not comparable to the land value in San Francisco and thus this approach would not be attractive to a developer.

The projects in Virginia and Delaware were made possible because of the massive tracts of land available to the developers. This allowed for large-scale development which offset the costs of the fire stations. This is also not possible in Berkeley due to the small amount of city owned land. Another takeaway from the case studies is that each project studied benefitted from having other funding sources in place prior to design and construction to offset costs.

The complete case study report prepared by Strategic Economics is included in this Master Plan's appendix.



H. DEVELOPMENT SCENARIO RECOMMENDATION

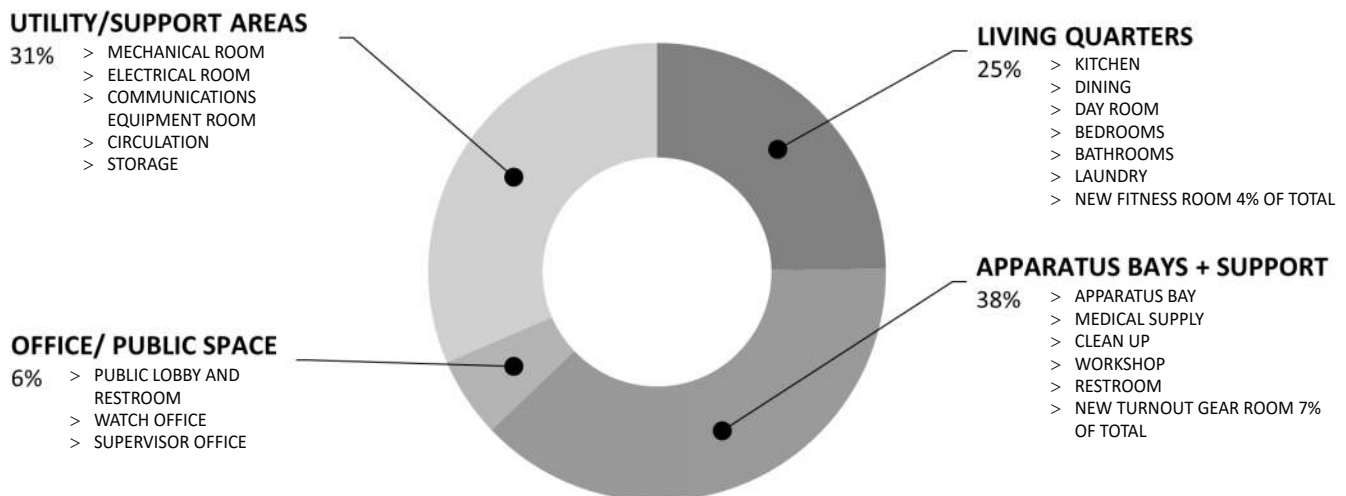
GUIDING PRINCIPLES: The following principles were established to inform the development of the Fire Department Master Plan.

1. All key operational efficiency and safety issues must be addressed.
2. In the station renovations, the addition of sleeping, dedicated turnout and fitness rooms are prioritized.
3. The plan prioritizes the replacement or renovation of the busiest stations first.
4. All additional ambulances or alternate response type programs (staff & vehicles) will be housed outside of the fire houses.
5. The project delivery schedule must allow funds to be maximized through the use of existing facilities as temporary unit locations during construction phases.
6. Utilize city owned property, if possible, to maximize funds for the new headquarters facility
7. Plan and build a regional training center in collaboration with other jurisdictions to the north in Alameda and Contra Costa.

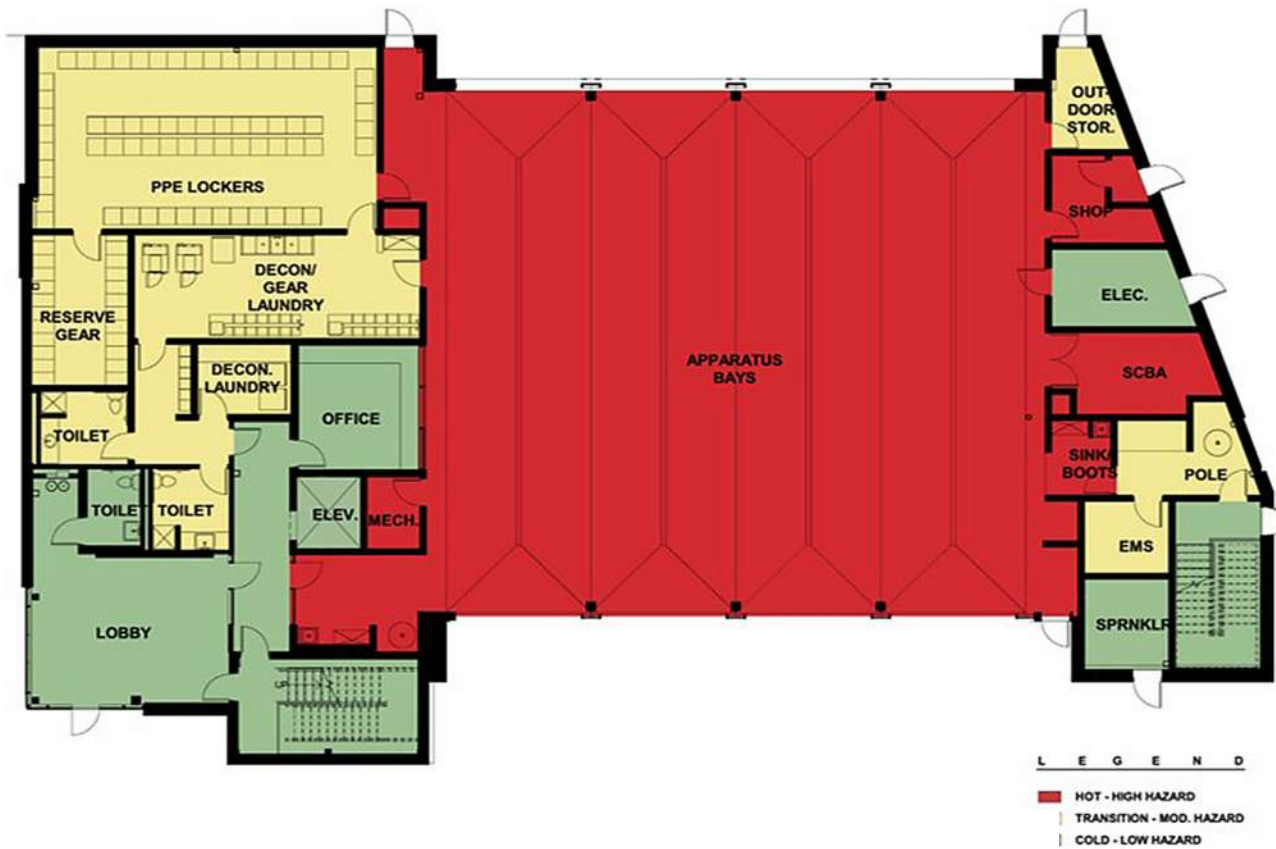
USES IN A TYPICAL STATION: Fire stations in and of themselves are a complex mixed-use building, combining residential, business and quasi-industrial uses under one roof. There are four major space need categories:

- > The greatest single use space in a station – roughly 38% – is taken up by apparatus, fire fighting equipment and gear, including Turnouts
- > Living quarters take up a quarter of a station and include shared and private spaces and fitness rooms which have typically been shoehorned into apparatus bays
- > A comparatively smaller area – 6% of a station – goes to administrative uses, entry and public restrooms.
- > The rest of the space – nearly a third of the stations – supports circulation and operations, such as: Storage, Mechanical, Electrical, and communication equipment rooms

TYPICAL STATION AREA BREAKDOWN



HOT WARM COOL ZONE DIAGRAM



The separation of the hazardous areas of the station with the living and office quarters is paramount to increased safety in a fire station. The diagram above indicates the areas of the station that are considered hazardous (Hot Zones), moderately hazardous (Warm Zones) and the balance of the areas, low hazard living quarters and office facilities are considered (Cool Zones).

H. DEVELOPMENT SCENARIO RECOMMENDATION

RECOMMENDED SCENARIO: The development phasing scenario recommended by this FDMP maximizes operational improvements by focusing first on the busiest and largest stations. The team tested a variety of ways to meet the guiding principles, a process which ultimately helped shape the principles themselves. For instance, the original goal was to add all the new ambulance and alternative response units to the existing stations. This proved to be impossible without expanding almost every station and purchasing adjacent residential parcels at each location. The recommended development scenario described below made the best use of the existing sites. A summary of the key points of each project follows.

SCENARIO DESCRIPTION: Most station projects can be implemented on city-owned property except for Station 1. This scenario successfully addresses increased staffing needs and key operational efficiencies.

The budgets reflected below are “Rough Order of Magnitude Cost Plans.” As a perspective, an order of magnitude cost model has the objective of identifying costs within an order of magnitude. The budget is not meant to be the lowest possible, but rather, to identify the order of magnitude of costs in considering next steps. A range of costs was used for planning purposes. The ranges below do not include escalation beyond 2024, property acquisition costs or program management costs. They include all construction, equipment and furnishings costs, plus fees for design, environmental review, permits, etc., associated with project delivery. In the recommended development phasing scenario, the initial focus is on the projects with highest call load and largest staffing numbers. Station 1 was proposed to be implemented first because it is a relocation project. Once a new Station 1 is complete and online, the existing original Station 1 can be used as temporary housing for the future replacement projects.

SEQUENCED PROJECTS

Design Start		Rough Order of Magnitude Costs	
		LOW x \$ Million	HIGH x \$ Million
2024	Fire Station 1 Relocation New site on/near San Pablo Ave	\$42	\$47
2026	Fire Station 2 Replacement Temporary Location - Station 1, 4, 5	\$51	\$56
2028	Fire Station 5 Replacement Temporary Location - Station 1, 4, 2	\$53	\$58
2030	Fire Station 4 Replacement Temporary Location - Station 2, 6	\$36	\$41

INDEPENDENT PROJECTS

Design Start		Rough Order of Magnitude Costs	
		LOW x \$ Million	HIGH x \$ Million
2023	New Headquarters Site TBD	\$33	\$36
2023	Training Center Phase 1 Renovation Phase 2 Replacement Regional Site TBD	\$81	\$90
2026	Fire Station 3 Renovation + Expansion Temporary Location - Station 2, 5	\$12	\$16
2028	Fire Station 6 Renovation + Expansion Temporary Location - Trailer on site	\$12	\$15
2030	Fire Station 7 Renovation + Expansion Temporary Location - TBD	\$10	\$13
TOTAL Rough Order of Magnitude Project Cost		\$330	\$372

H. DEVELOPMENT SCENARIO RECOMMENDATION



THE PROPOSED PROJECTS IN ORDER OF DEVELOPMENT ARE OUTLINED BELOW:

Fire Station No. 1 - Relocation and Replacement on a new site (to be identified)



Key Attributes: Relocation and expansion of Fire Station 1 to a more commercial site in the same response area. Current station can then be used as a temporary station as others are renovated.

Rationale: The existing site is located in a residential neighborhood. The adjacent properties would need to be purchased to accommodate an expansion or replacement on site. These properties contain apartment buildings. Dozens of house units would need to be removed to accommodate the operational needs at this location. Therefore, it is recommended to relocate this facility to a site in a commercial area.

Order of Magnitude Budget Range: \$42-47M

Schedule: Recommended design start 2024

Fire Station No. 2 – Replacement at existing site (2029 Berkeley Way)



Key Attributes: Replace the station on the existing site with a new 3-story building that includes all required parking.

Rationale: Fire Station No. 2 is the Fire Department’s most populated and busiest station with multiple cross staff units. The current configuration does not allow the staging of all apparatus for response. In addition, there is not adequate on-site staff or visitor parking. The replacement of the station includes a parking deck which allows this station to meet all current and projected needs.

Order of Magnitude Budget Range: \$51-56M

Schedule: After completion of Fire Station 1

Fire Station No. 5 - Replacement at existing site (2680 Shattuck Avenue)



Key Attributes: Replacement of existing station with a new 2-story building plus basement parking in order to fully meet all programmatic and parking needs on site.

Rationale: Station No. 5 is the Department’s second most populated and busiest station. It also houses multiple support units. The station has been renovated multiple times and is past its useful life. The site area is very compact and does not currently allow adequate space for site operations. The recommended option replaces the station onsite and adds subterranean parking for staff and the supporting units.

Order of Magnitude Budget Range: \$53-58M

Schedule: After completion of Fire Station 2

Fire Station No. 4 – Replace at existing expanded existing site (1900 Marin Avenue)



Key Attributes: Replacement of existing building on an expanded site to meet programmatic and parking requirements.

Rationale: This response area of the City has been identified as an area that should plan for an additional ambulance. The existing fire station can not be expanded to add the apparatus bay necessary for this new unit due to its unique configuration. The recommendation for this station is to replace it at the existing site and expand the site into the adjacent road right of ways.

Order of Magnitude Budget Range: \$36-41M

Schedule: Design start 2030

Fire Station No. 3 – Renovation and addition at existing site (2710 Russell Street)



Key Attributes: Renovation and expansion of existing fire station to provide a dedicated fitness room, turnout storage, private office and private sleeping rooms.

Rationale: This station is not recommended to add new units. The renovation will focus on improving the health, safety and privacy aspects of the fire station.

Order of Magnitude Budget Range: \$12-16M

Schedule: Design start 2026

Fire Station No. 6 – Renovation and addition at existing site at existing site (999 Cedar Street)



Key Attributes: Renovation and expansion of the existing fire station to provide a dedicated fitness room, turnout storage, private offices and private sleeping room. The entire station will be renovated to allow modernize the kitchen, dining and dayroom.

Rationale: This station is not recommended to add new units although the increases in staffing on existing units are driving the need to modernize the living quarters. In addition, the station will be expanded to improve the health, safety and privacy aspects of the station.

Order of Magnitude Budget Range: \$11.6-14.6M

Schedule: Design start 2028

Fire Station No. 7– Renovation and addition at existing site (3000 Shasta Road)



Key Attributes: Renovation and expansion of existing fire station to provide a dedicated fitness room, turnout storage and private sleeping quarters for the additional staffing staged at this location during high fire season.

Rationale: Station 7 is the Department’s newest station, however, it is lacking some of the basic spaces required to provide a safe work environment. Primarily the missing space is a dedicated turnout room with decontamination equipment. In addition, additional sleeping rooms are necessary to accommodate the move up staffing during fire season.

Order of Magnitude Budget Range: \$10-13M

Schedule: Design start 2030

Headquarters – Relocation to new site.



Key Attributes: Relocation of headquarters to a city owned building. Location to be big enough to Administrative offices, training classrooms, and the ambulance deployment center.

Rationale: Current location cannot accommodate the growing staff or the ambulance deployment center.

Order of Magnitude Budget Range: \$33-36M

Schedule: Design start 2023

Training Facility – New construction and renovation at site to be determined



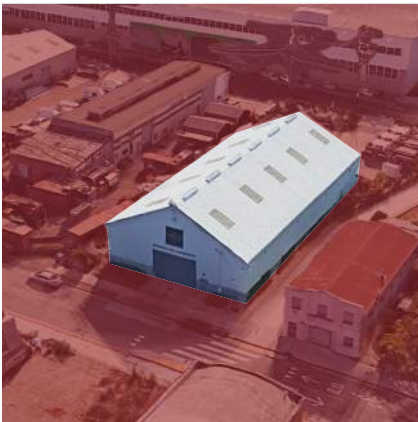
Key Attributes: Relocation of the training facility in partnership with other local municipalities.

Rationale: The current location is undersized and located in a residential neighborhood which impacts what training can occur there. The region is missing a large training facility for emergency responders

Order of Magnitude Budget Range: \$81-90M

Schedule: Phase 1 design Start 2023

Warehouse – Renovation at site in progress



Key Attributes: Renovation of this building is currently in the design phase and will provide a small office and meeting location.

Rationale: The current location has staff assigned but they work from a desk in the warehouse space, exposed to noise and exhaust, and without climate controls.

Order of Magnitude Budget Range: \$800-1.5m

Schedule: Design underway



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CITY OF BERKELEY

BERKELEY FIRE DEPARTMENT MASTER PLAN

VOLUME I

DRAFT MAY 08, 2023



SIEGEL & STRAIN Architects |

 **MARY MCGRATH | ARCHITECTS**



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FIRE STATION 1



CITY OF BERKELEY

FIRE HOUSE NO. 1

2442 EIGHTH STREET, BERKELEY, CA 94710

DRAFT

MAY 08, 2023

PROJECT DESCRIPTION

The existing Fire House No. 1 is 5,410 SF and was originally designed in 1966 to provide operational space and living quarters for three personnel. The facility was seismically retrofitted in the 1990's and renovated in 2015 to provide accessible and private restrooms. The fire station currently houses 6 personnel per shift and houses Engine 1(3), Medic 1 (2) and Medic Trainee (1). This station personnel is anticipated to grow through the addition of a future ambulance or mobile integrated paramedic and a Battalion Chief. The staffing will increase to 12 personnel per shift.

Four options were evaluated. They include:

1. Renovation and expansion with 15,700 Total Square feet and all parking met. Purchase three adjacent properties.
2. Replace station with a new 15,700 SF station on the existing site with surface parking. Purchase three adjacent properties.
3. Replace station with a new 15,700 SF station on the existing site with a 12,810 SF subterranean parking garage. Purchase three adjacent properties.
4. Replace station with a new 15,700 SF Station on a new site that allows surface parking.
(Recommended)

The renovation or replacement on the existing site is not desirable at this location because it would require the removal of three apartment buildings. The recommended option for this location is to purchase a new property which is not deep into a residential neighborhood but in the general area.

The ROM Project Budget for the Recommended Option 4 is \$42-47M; not including the property purchased and escalation beyond 2024.



Fire House No. 1
Engine 1, Medic 1 and Community Medic/MIP or Ambulance, Future Battalion Chief
2442 Eighth Street

CONCEPTUAL SPACE NEEDS OUTLINE

Fire House Company Make-up - Staffing Per shift	Current	Future
Engine 1 - Captain, Engineer, Firefighter/Paramedic	3	4
Medic 1 (Ambulance) - Medic, EMT	2	2
Community Medic (or MIP or Ambulance) - Medic, EMT	0	2
Future Battalion Chief	0	1
Medic Trainee	1	2
Ambulance - Reserve	0	0
TOTAL CURRENT AND PLANNED STAFFING:	6	11

No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
SITE OPERATIONS				
	Firefighter Parking	22 firefighter parking spaces, secure and separate from public parking	4,800	10'x20' ea.
	Visitor Parking	One regular and one ADA adjacent to entrance, shared with other public parking areas.	600	10' x 20
	Apparatus Washing Area	Adjacent to hydrant for refill and testing; locate at rear of App. Bays; provide clarifier for run-off	0	rear apron
	Hose Maintenance Area	Use rear apron area for cleaning hose; roll wet and store on apparatus	0	rear apron
	Yard Hydrant	Located at rear yard	0	rear apron
	Generator Area	Located at rear yard	150	10'x15'
	Fueling Area	Above Grade Convault System - 1,500 GA	240	12' x 20'
	Trash Enclosure	Exterior access for service; space for dumpster and recycling bins, Covered	150	10'x15'
	Flagpole	Flagpole area with lighting	25	5'x5'
	Outdoor Patio or Deck	Outdoor uses; adjacent to Kitchen	200	10'x20'

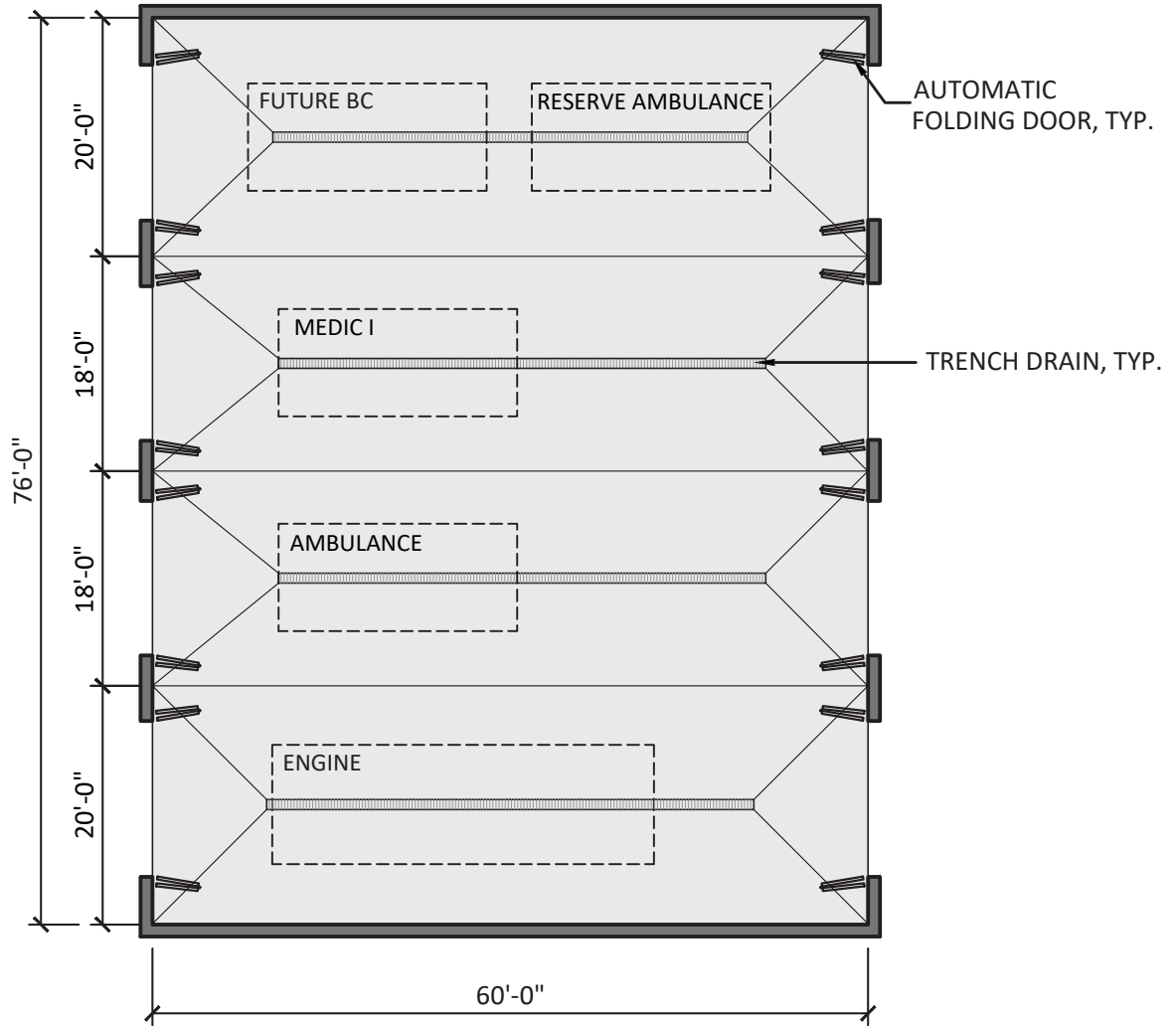
No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
FIRE HOUSE - APP BAY/APP BAY SUPPORT				
1	Apparatus Bay (Four Drive through Bays)	Engine, Medic 1, Future Ambulance/ MIP and Future BC Vehicle; Future Front line apparatus. Reserve Ambulance Second Line Storage. Systems include tailpipe exhaust, power and air cord drops to each vehicle; electric heating system; night lighting; bi-folding auto-close doors; trench drains	4,560	(2) 20' x 60' (2) 18' x 60'
2	Medical Supply Closet	Heavy Duty Shelving; medical supplies off of apparatus bay.	24	3' x 8'
3	Clean Up	Clean-up sink, shelving, Alcove in bay.	18	3' x 6'
4	Equipment Storage	Yard equipment, bike storage (LEED Requirement), compressor	96	8' x 12'
5	Turnout Gear Room	Two lockers for each assigned personnel (11 Personnel per day x 3 = 33), 66 locker plus 6 reserve for 72 lockers total. Power at each locker, continuous exhaust fan, floor drain, heavy duty shelving; wildland gear bags. Dirty area in room with Extractor and Dryer, decon shower and hanging area. Part of response return path.	1,200	24' x 50'
6	Janitor Room	Service sink, mop rack; janitorial supplies;	48	6' x 8'
7	Work Shop Alcove	Work bench/shop area for vise, peg board, tool storage with large flat work surface, Misc. equipment storage , tool chest, Full height storage cabinet, shop sink and eyewash.	120	4' x 30'
8	Firefighter Restroom	Fire fighter toilet and sink, off of apparatus bay	64	8' x 8'
9	Fitness Room	Dedicated Fitness Room	624	26' x 24'
Fire House - App Bay/Support Subtotal			6,754	
No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
FIRE HOUSE - FIREFIGHTER OFFICES				
10	Fire House Public Lobby	Lobby with seating; adjacent to the public restroom. Service window separation between Watch Office and lobby. Alcove in Lobby for Blood Pressure and other wellness checks.	180	12' x 15'
11	Fire House Public Restroom	One All Gender Restroom, accessible, off of Lobby	64	8'x8'
12	Watch Office	Workstations for 4-persons; provide space for lateral file cabinets (one cabinet per company) copy machine and office supply storage, book shelving; conference function	238	14' x 17'
13	Private Office (Engine Captain and Senior Medic)	Workstation for 2-persons; provide space for (2-six drawer) lateral file cabinets.	120	10' x 12'
14	Battalion Chiefs Office - Future	Workstation for 3-persons; provide space for lateral file cabinets, Meeting table for four	288	18' x 16'
Fire House - Firefighter Offices Subtotal			890	

No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
FIRE HOUSE - FIREFIGHTER QUARTERS				
15	Kitchen	3-refrigerators; 3-shift pantries; 1-house pantry and refrigerator; 2-dishwashers; electric induction range/oven with hood; large microwave; large, 12" deep sink with disposer; prep sink at island; trash and recycling areas; coffer service area; open to Dining Area	378	18' x 21'
16	Dining Area	Seating for 12 persons; wall-mounted TV; open to kitchen; open to Day Room	252	12' x 21'
17	Day Room	Seating for 11 with recliner chairs; entertainment center and book shelving; Open to Dining, one work station along wall.	720	30' x 24'
18	Laundry Room	Service sink; countertop; janitorial supplies; mop rack, Washer/Dryer	140	10' x 14'
19	Firefighter/Intern Bedrooms	9-separate bedrooms each containing desk, chair, wall-mounted TV, 1 bed with lockers outside door.	689	8'-6" X 9' (9)
20	Firefighter Bathroom ADA	1 accessible restroom with shower, sink, toilet	81	9' x 9'
21	Firefighter Bathrooms	5 restrooms with shower, sink, toilet	256	8' x 8' (5)
22	Captain Bedroom, Bathroom and Work Area, Accessible	1-separate bedroom containing desk, chair, wall-mounted TV, 1 bed. Accessible in-suite bathroom.	250	10' x 16' 10' x 9' 10' x 5'
23	BC Bedroom, Bathroom and Work Area, Accessible	1-separate bedrooms each containing desk, chair, wall-mounted TV, 1 bed. One with accessible in-suite bathroom.	250	10' x 11' 9' x 10' 5'x10' (2)
Fire House - Firefighter Quarters Subtotal			3,016	

No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
UTILITY SUPPORT/VERTICAL CIRCULATION				
24	Mechanical Room	HVAC equipment; hot water heater; fire sprinkler riser	108	9' x 12'
25	Electrical Room	Main service panel, fire alarm panel; sub panels	108	9' X 12'
26	Communications Room	Telephone service racks, alert response system hub, data server hub, radio equipment; security system	140	10' x 14'
27	Stairs	(2x) for each level. Two stairways from the second floor for exiting	576	18' x 8'
28	Fire House Elevator	Elevator and machine room	240	8' x 10' (3)
Utility Support/ Vertical Circulation Subtotal			1,172	

Engine 1, Medic 1, Community Medic, Future Battalion Chief, Reserve Ambulance: Summary		Program	
	Fire House - App Bay/Bay Support Subtotal	6,754	
	Fire House - Firefighter Offices Subtotal	890	
	Fire House - Firefighter Quarters Subtotal	3,016	
	Utility Support/Vertical Circulation Subtotal	1,172	
	BUILDING SUBTOTAL (SF)	11,832	
	Circulation at 30%	3,549	
Engine 1, Medic 1, Community Medic, Future BC, Reserve Ambulance: GRAND TOTAL (SF)		15,381	

FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



1. APPARATUS BAY - 4 DRIVE-THROUGH BAYS (4,560 S.F.)

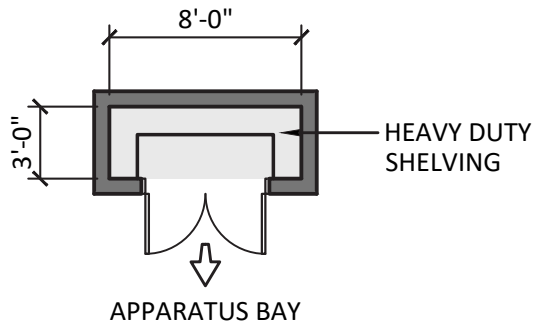
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CITY OF BERKELEY
FIRE HOUSE NO. 1
ENGINE I, MEDIC I AND COMMUNITY MEDIC OR
MIP OR AMBULANCE

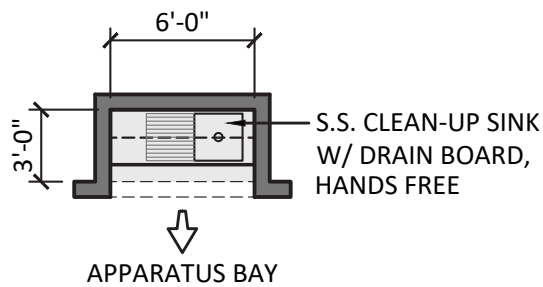


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



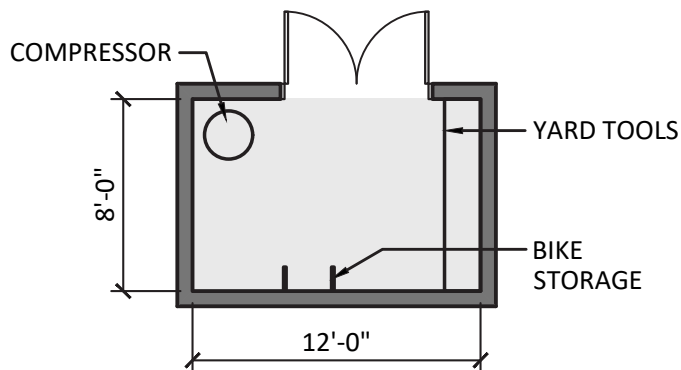
2. MEDICAL SUPPLY CLOSET (24 S.F.)

SCALE: 1/8"=1'-0"



3. CLEAN-UP (18 S.F.)

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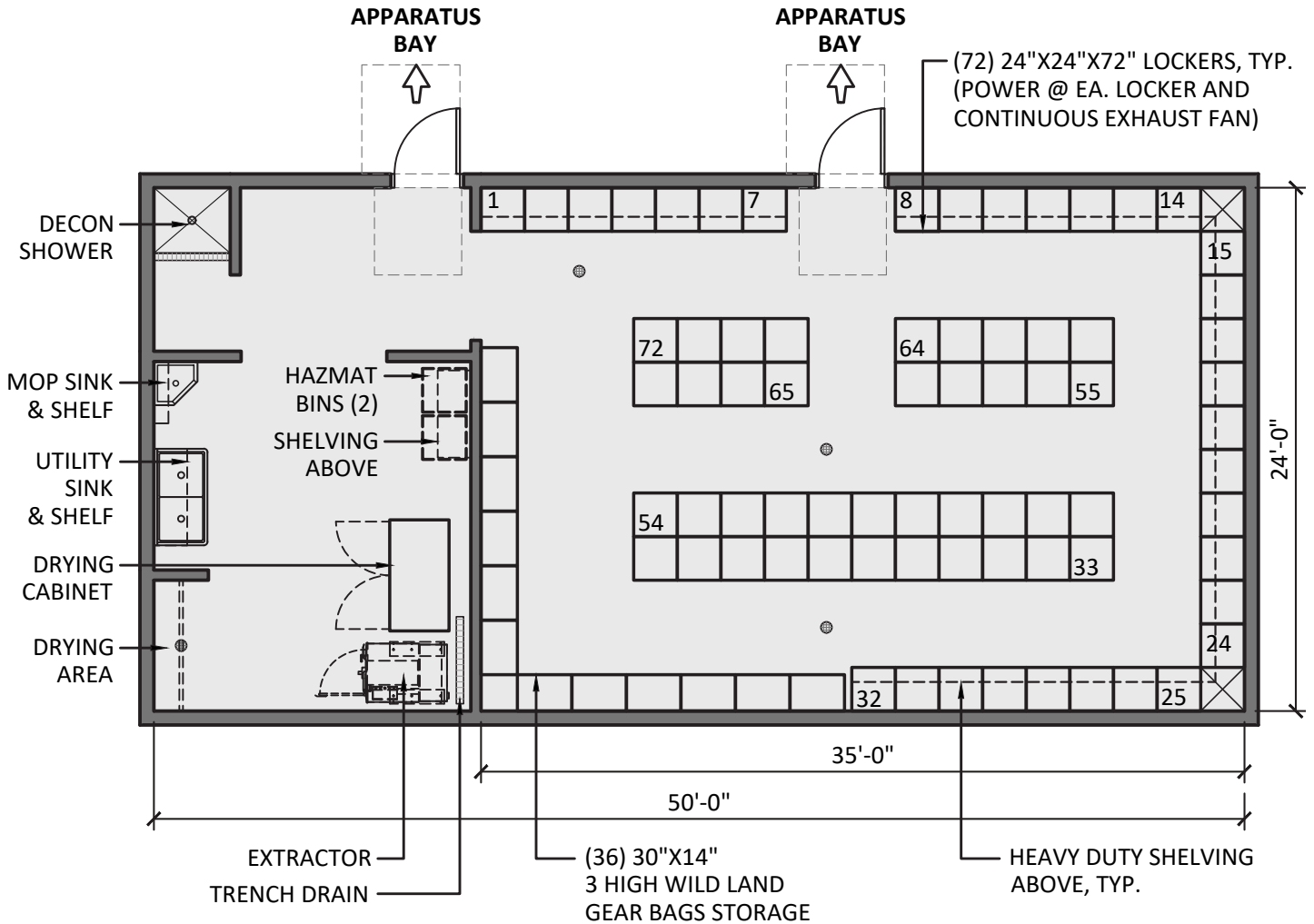


4. EQUIPMENT STORAGE (96 S.F.)

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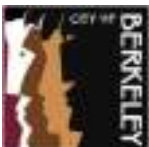


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



5. TURNOUT GEAR ROOM (1,200 S.F.)

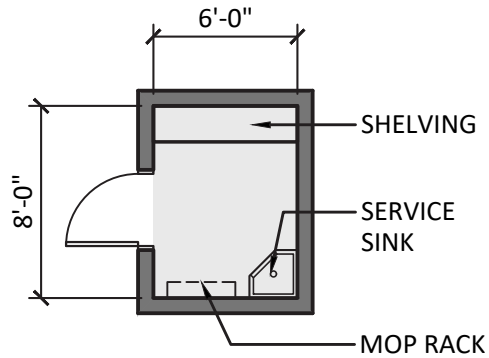
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CITY OF BERKELEY
FIRE HOUSE NO. 1
 ENGINE I, MEDIC I AND COMMUNITY MEDIC OR
 MIP OR AMBULANCE

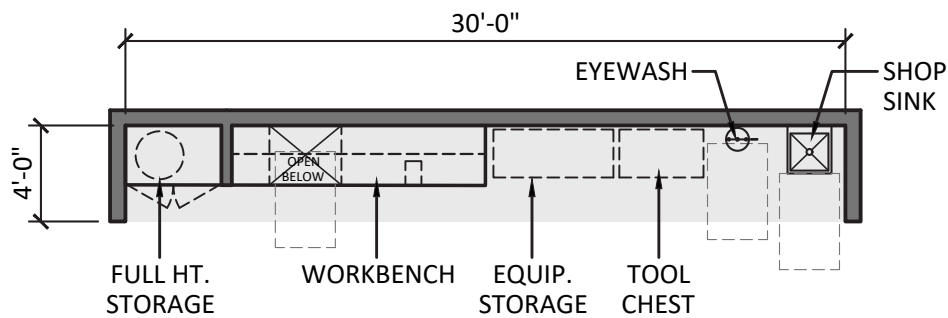


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



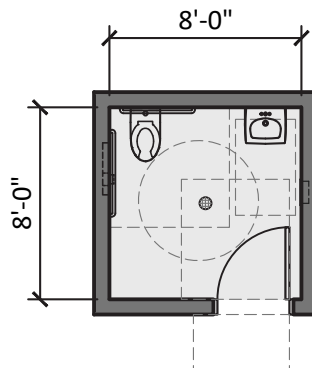
6. JANITOR ROOM (48 S.F.)

SCALE: 1/8"=1'-0"



7. WORKSHOP ALCOVE (120 S.F.)

SCALE: 1/8"=1'-0"

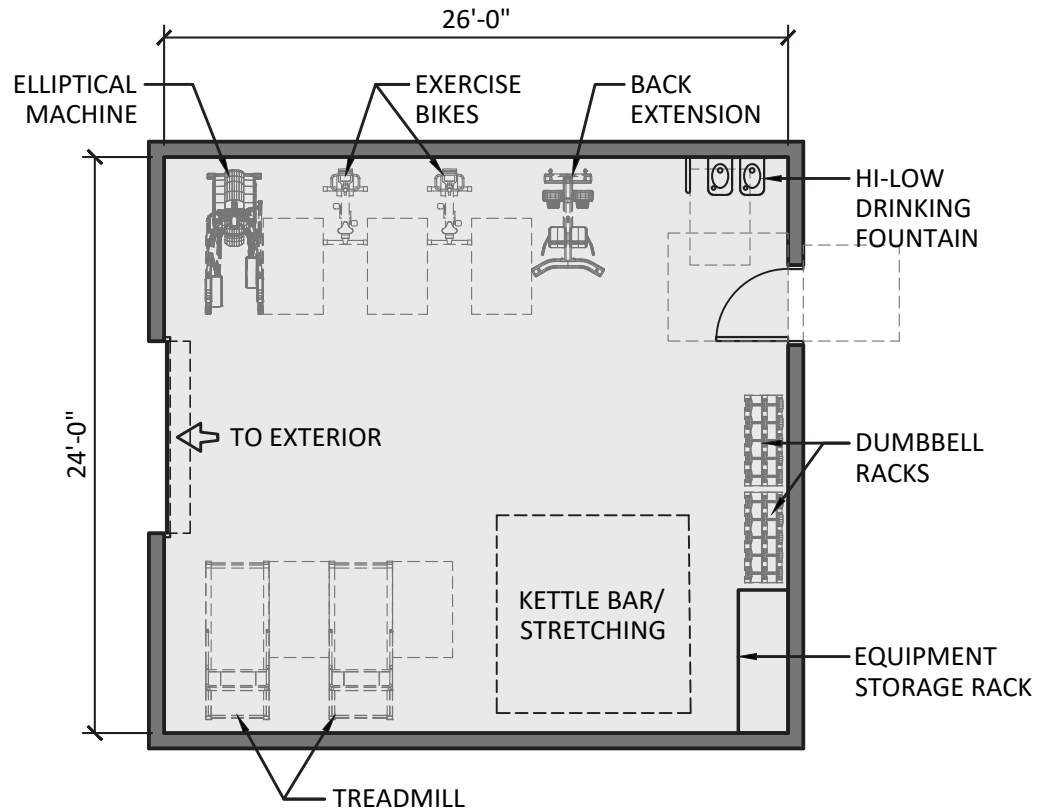


8. FIREFIGHTER RESTROOM (64 S.F.)

SCALE: 1/8"=1'-0"



FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT

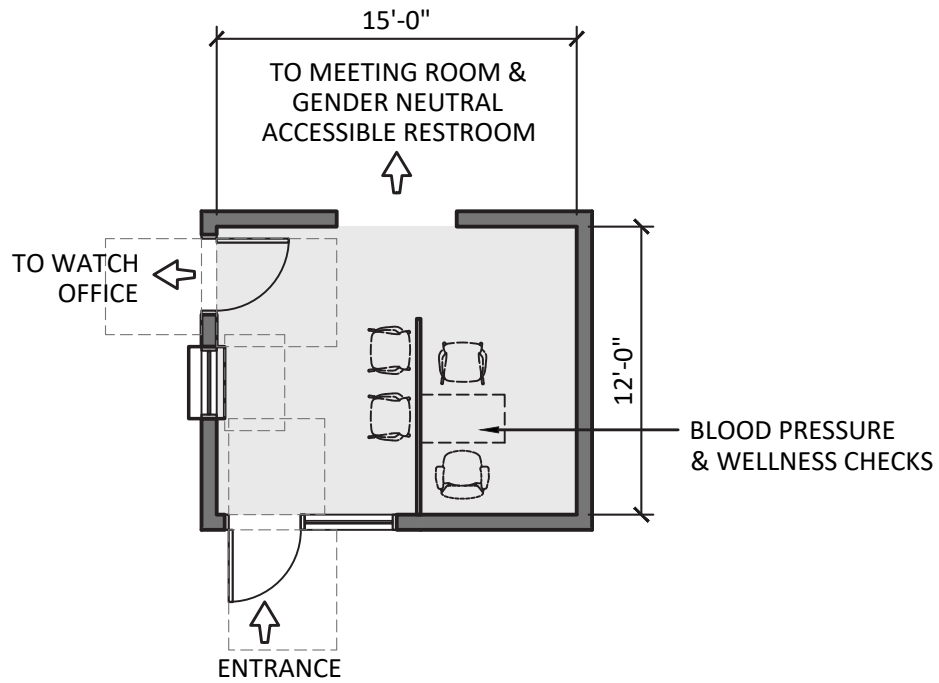


9. FITNESS ROOM (624 S.F.)

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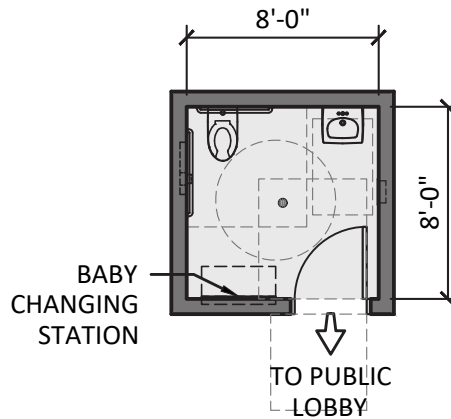


FIRE HOUSE - FIREFIGHTER OFFICES



10. FIRE HOUSE PUBLIC LOBBY (180 S.F.)

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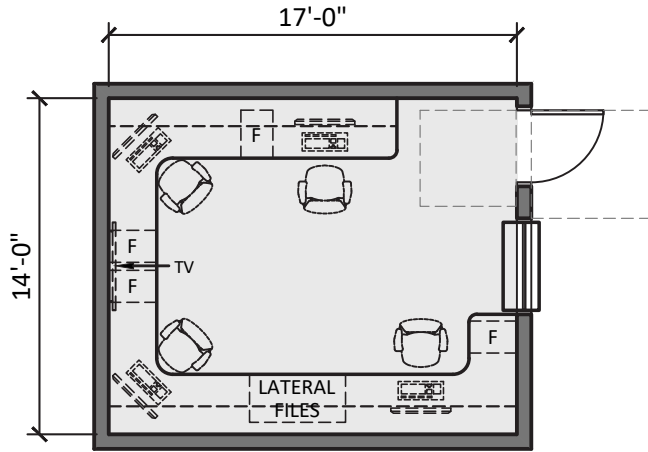


11. FIRE HOUSE PUBLIC RESTROOM (64 S.F.)

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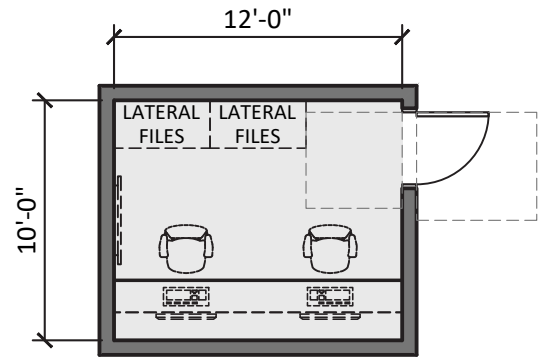


FIRE HOUSE - FIREFIGHTER OFFICES



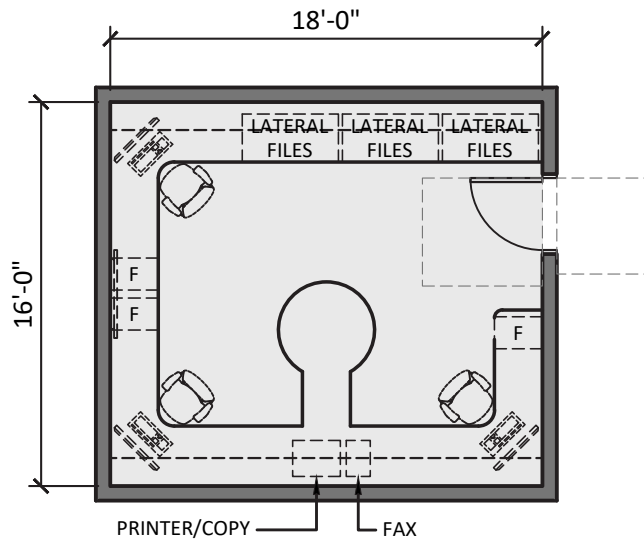
12. WATCH OFFICE (238 S.F.)

SCALE: 1/8"=1'-0"



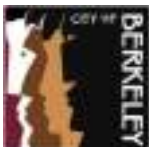
13. CAPTAIN'S OFFICE (120 S.F.)

SCALE: 1/8"=1'-0"



14. BATTALION CHIEF'S OFFICE-FUTURE (288 S.F.)

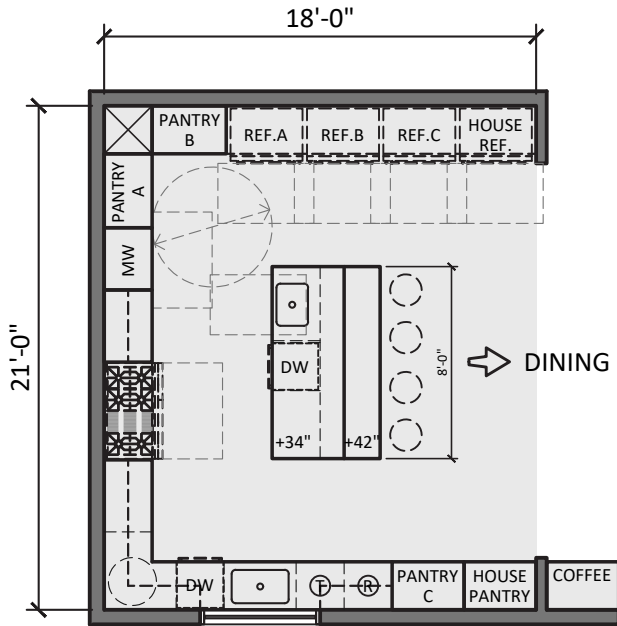
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CITY OF BERKELEY
FIRE HOUSE NO. 1
 ENGINE I, MEDIC I AND COMMUNITY MEDIC OR
 MIP OR AMBULANCE

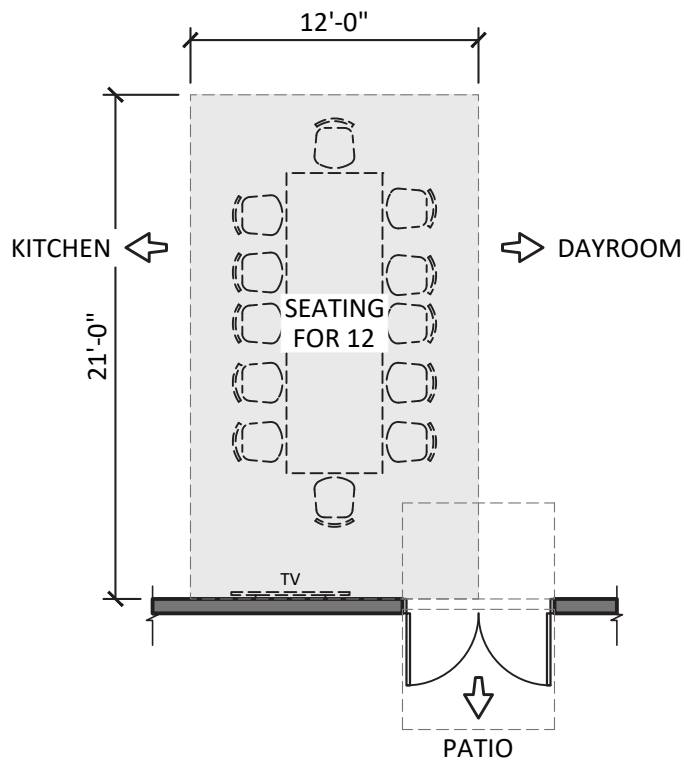


FIRE HOUSE - FIREFIGHTER QUARTERS



15. KITCHEN (378 S.F.)

SCALE: 1/8"=1'-0"

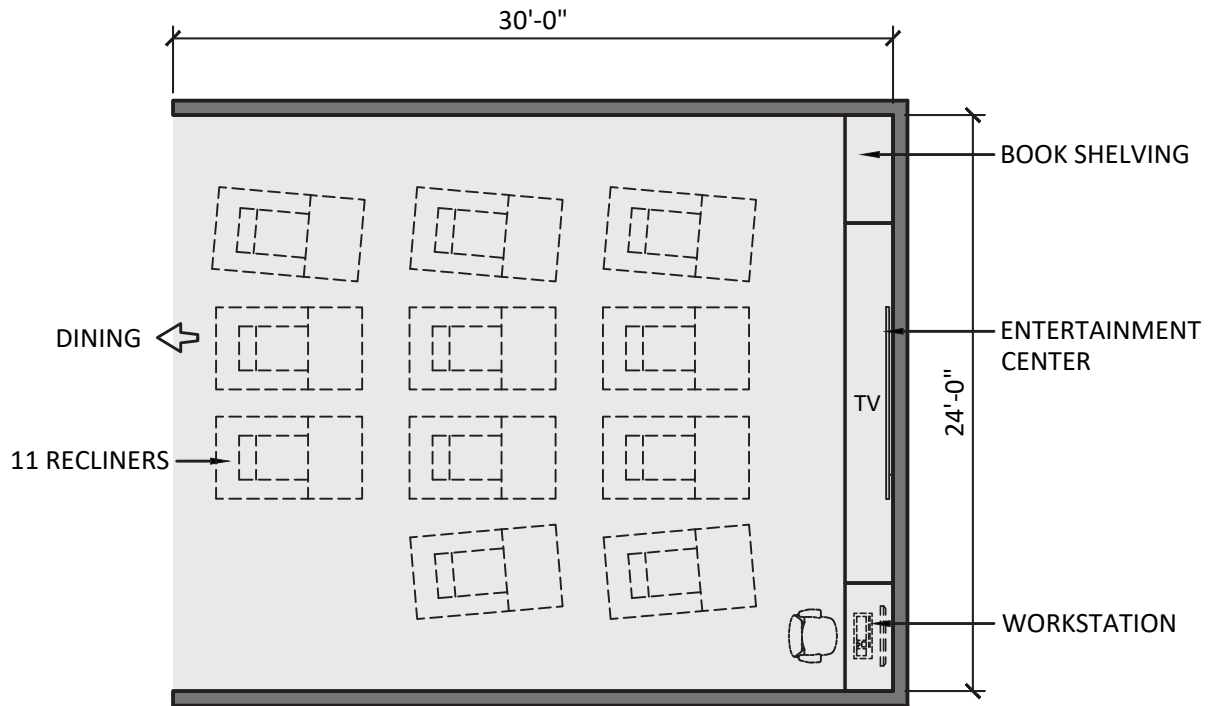


16. DINING AREA (252 S.F.)

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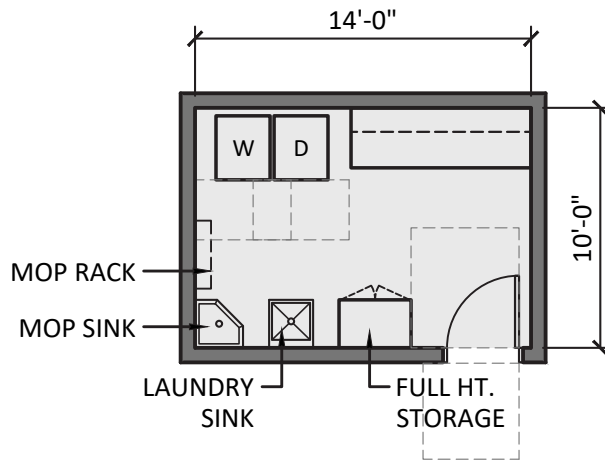


FIRE HOUSE - FIREFIGHTER QUARTERS



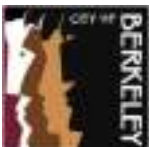
17. DAY ROOM (720 S.F.)

SCALE: 1/8"=1'-0"

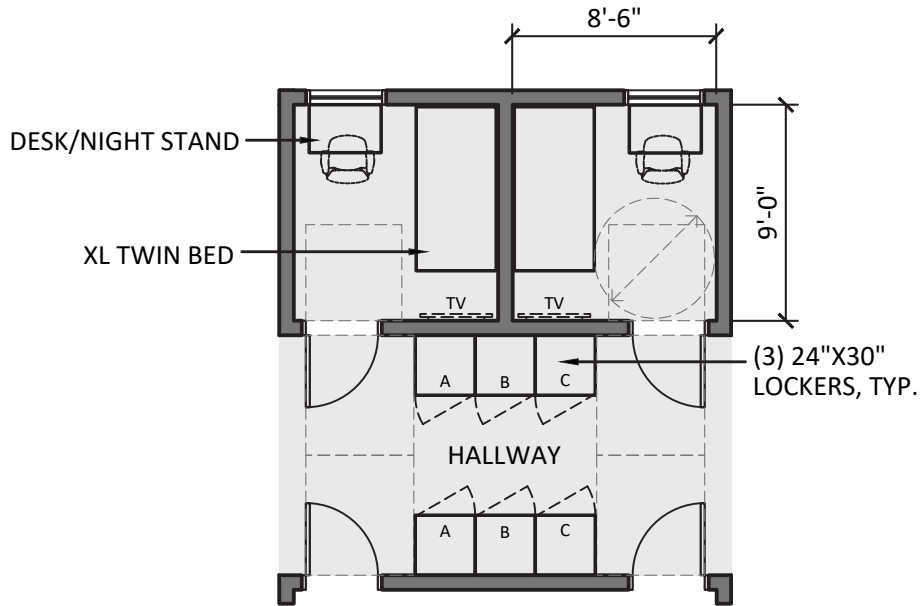


17. LAUNDRY ROOM (140 S.F.)

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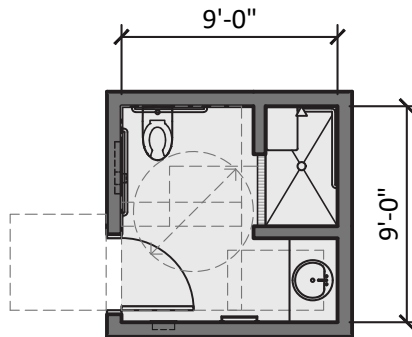


FIRE HOUSE - FIREFIGHTER QUARTERS



19. FIREFIGHTER/INTERN BEDROOMS - 9 (689 S.F.)

SCALE: 1/8"=1'-0"

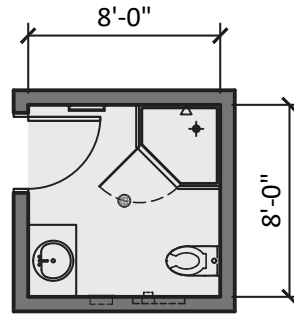


20. FIREFIGHTER BATHROOM - ADA (81 S.F.)

SCALE: 1/8"=1'-0"

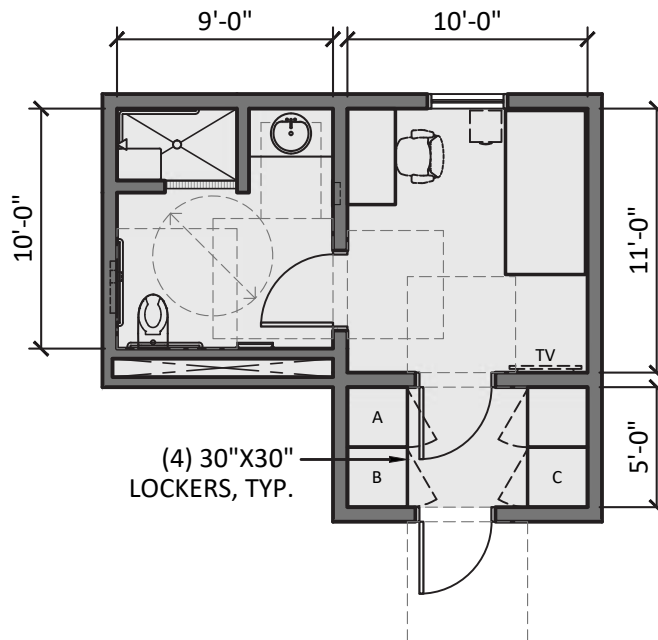


FIRE HOUSE - FIREFIGHTER QUARTERS



21. FIREFIGHTER BATHROOM - 5 (256 S.F.)

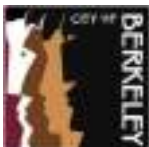
SCALE: 1/8"=1'-0"



22. CAPTAIN BEDROOM, BATHROOM AND WORK AREA, ACCESSIBLE (250 S.F.)

23. BC BEDROOM, BATHROOM AND WORK AREA, ACCESSIBLE (250 S.F.)

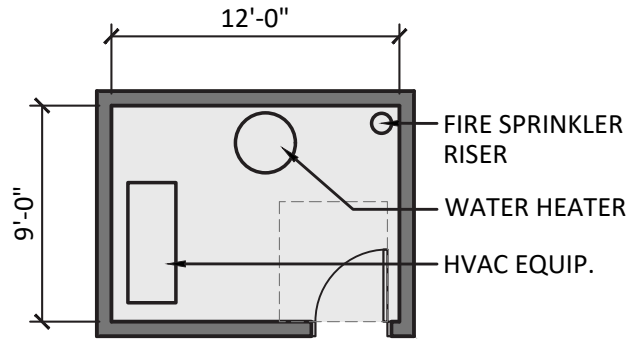
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CITY OF BERKELEY
FIRE HOUSE NO. 1
 ENGINE I, MEDIC I AND COMMUNITY MEDIC OR
 MIP OR AMBULANCE

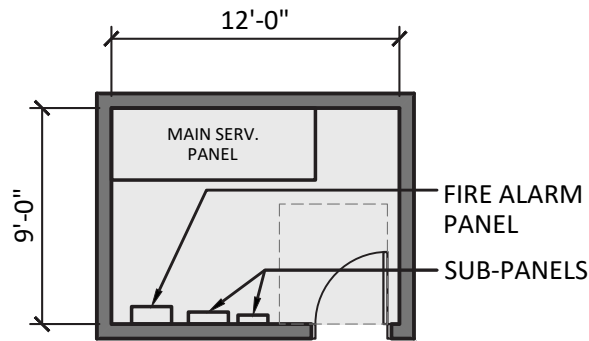


FIRE HOUSE - UTILITY SUPPORT/VERTICAL CIRCULATION



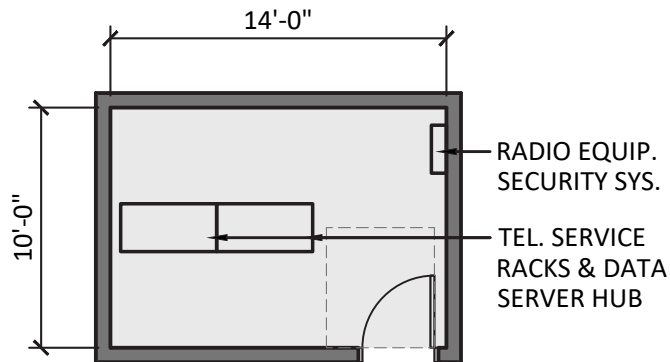
24. MECHANICAL ROOM (108 S.F.)

SCALE: 1/8"=1'-0"



25. ELECTRICAL ROOM (108 S.F.)

SCALE: 1/8"=1'-0"



26. COMMUNICATIONS ROOM (140 S.F.)

SCALE: 1/8"=1'-0"





FIRE STATION NO. 1

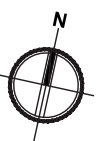
(E) LOT AREA:	10,125 S.F.
3 ADDITIONAL TOTAL LOT AREA:	14,035 S.F.
(E) BUILDING TOTAL AREA:	7,474 S.F.
(N) TOTAL BLDG. AREA:	16,333 S.F.

LEGEND:

- EXISTING BUILDING AREA
- ADDED BUILDING AREA
- RENOVATION AREA

SITE PLAN DIAGRAM

SCALE: 1/32" = 1'-0"



CITY OF BERKELEY
FIRE SERVICE MASTER PLAN
SITE STUDIES

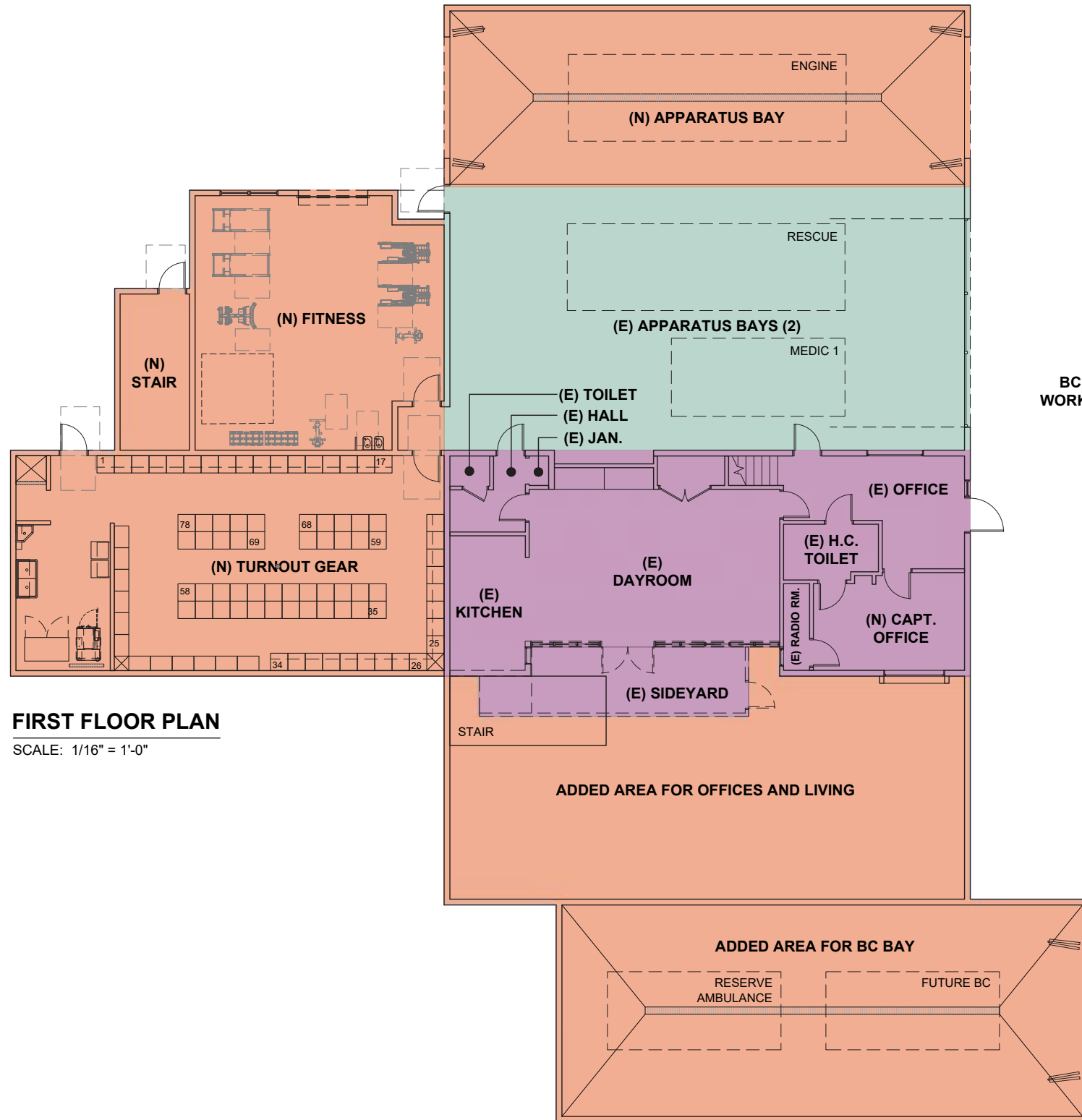
TITLE:

FIRE STATION NO. 1 - SITE PLAN (OPTION 1 - BLDG. RENOVATION & ADDITIONAL AREA)
 2442 EIGHTH STREET, BERKELEY, CA 94710

03.17.2023

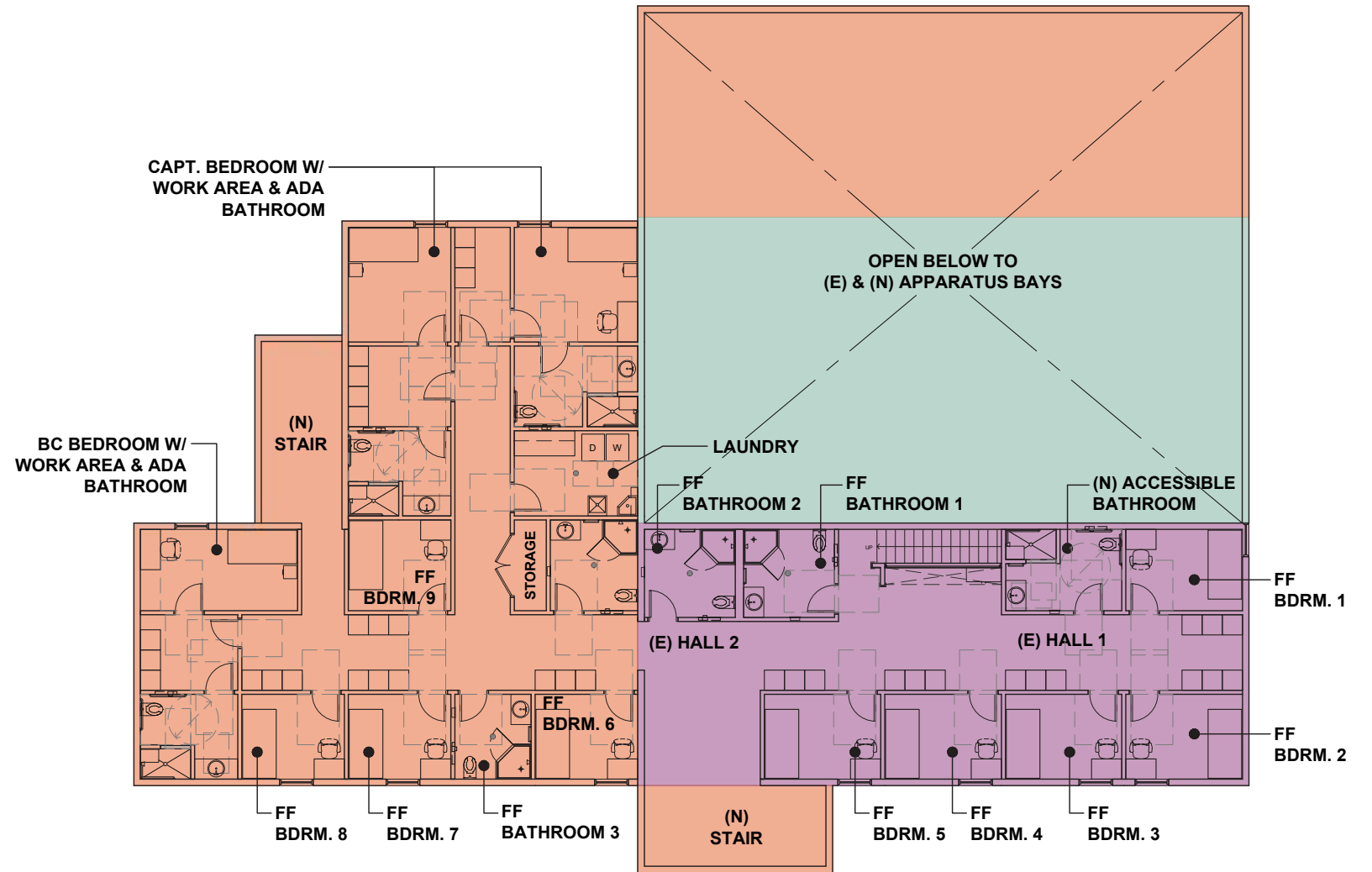
SIEGEL & STRAIN Architects
 6201 DOYLE STREET, SUITE B,
 EMERYVILLE, CA 94608
 phone: 510.547.8092 | www.siegelstrain.com

MARY MCGRATH ARCHITECTS
 610 16th STREET, SUITE 219, OAKLAND, CA 94612
 phone: 510.208.9400
 www.marymcgratharchitects.com



FIRST FLOOR PLAN

SCALE: 1/16" = 1'-0"



SECOND FLOOR PLAN

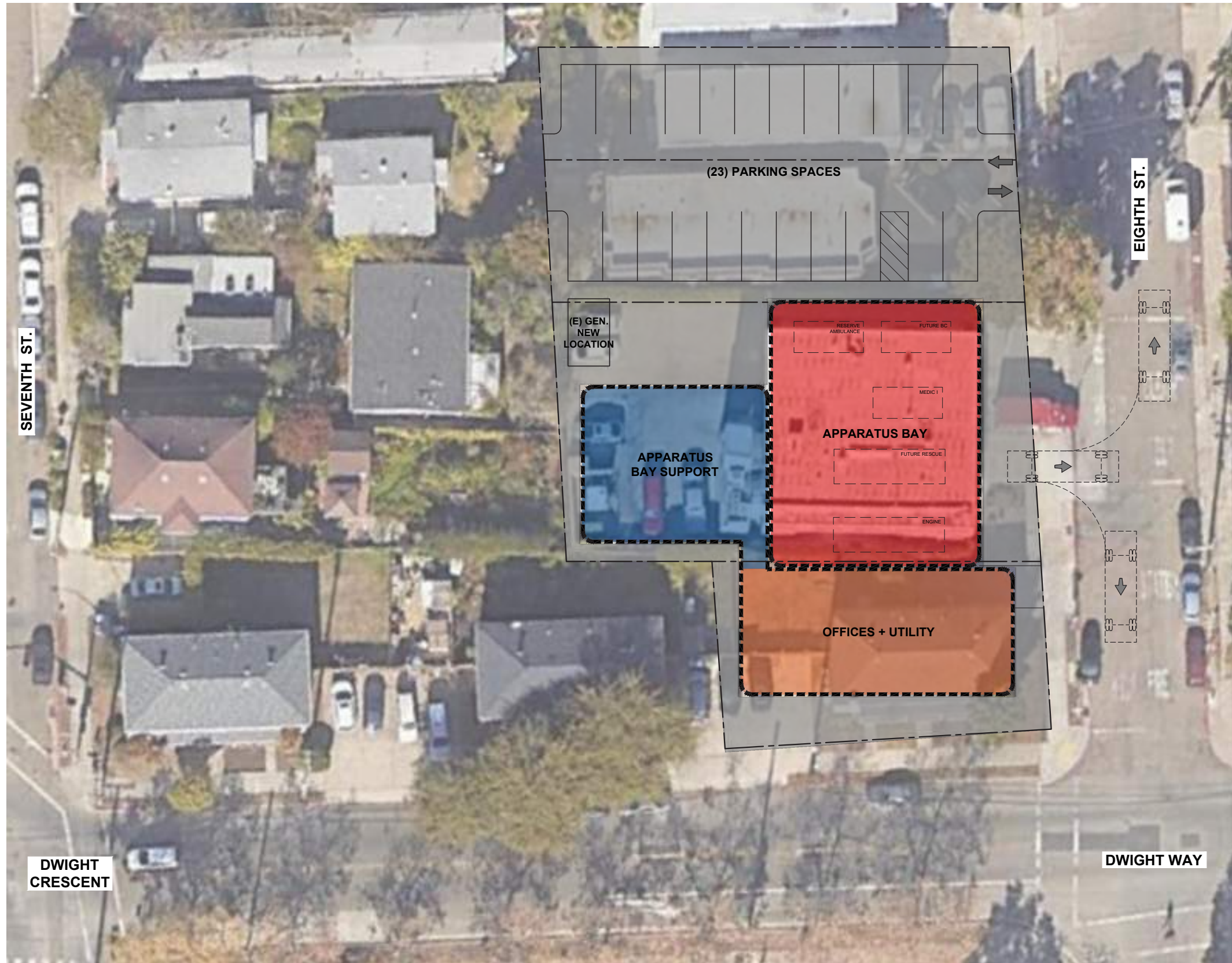
SCALE: 1/16" = 1'-0"

FIRE STATION NO. 1

(E) BUILDING TOTAL AREA: 7,474 S.F.
 PROPOSED ADDED TOTAL BLDG. AREA: 16,313 S.F.

LEGEND:

- EXISTING BUILDING AREA
- ADDED BUILDING AREA
- RENOVATION AREA



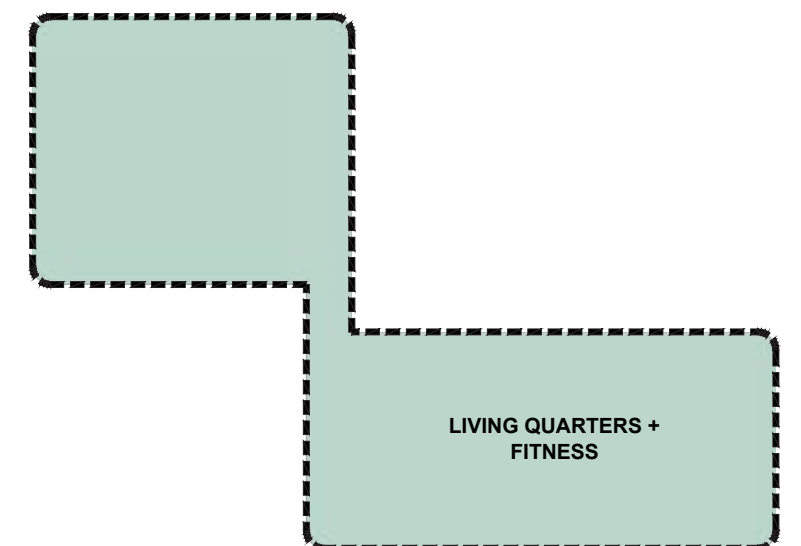
SITE/FIRST FLOOR DIAGRAM

SCALE: 1/32" = 1'-0"

FIRE STATION NO. 1

2 STORY BUILDING

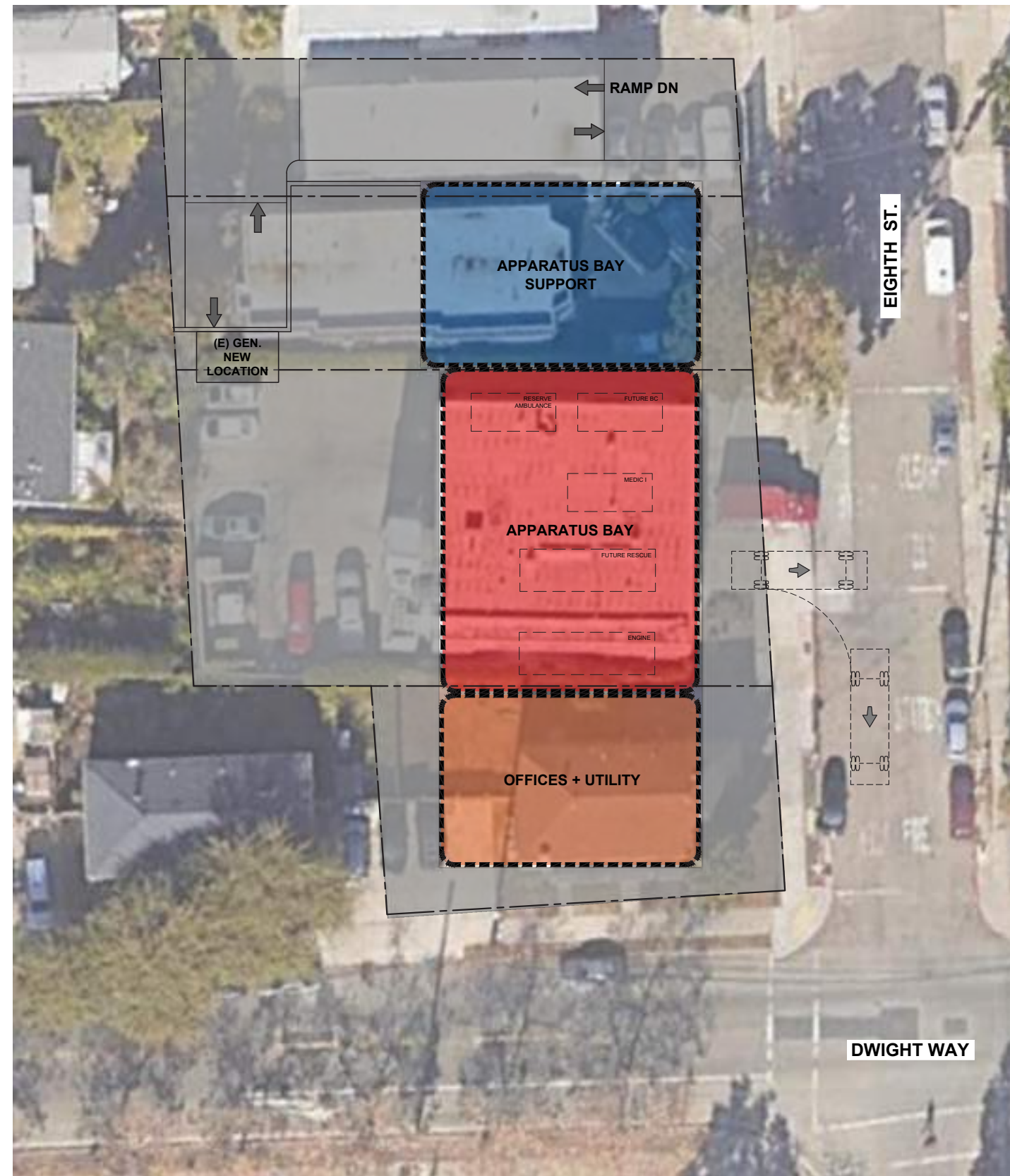
1ST FLOOR BUILDING AREA: 9,786 S.F.
 2ND FLOOR BUILDING AREA: 5,920 S.F.
 TOTAL BUILDING AREA: 15,706 S.F.



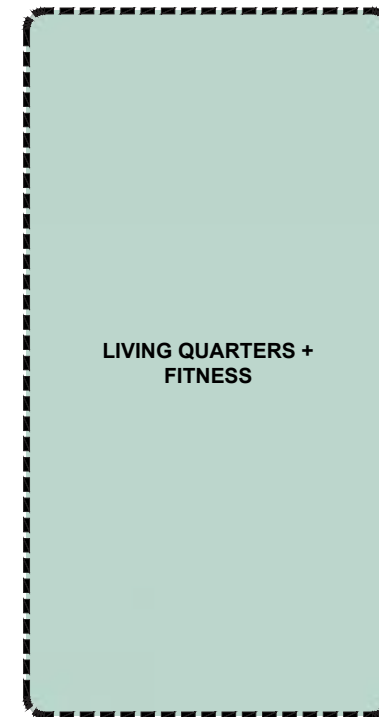
SECOND FLOOR DIAGRAM

SCALE: 1/32" = 1'-0"

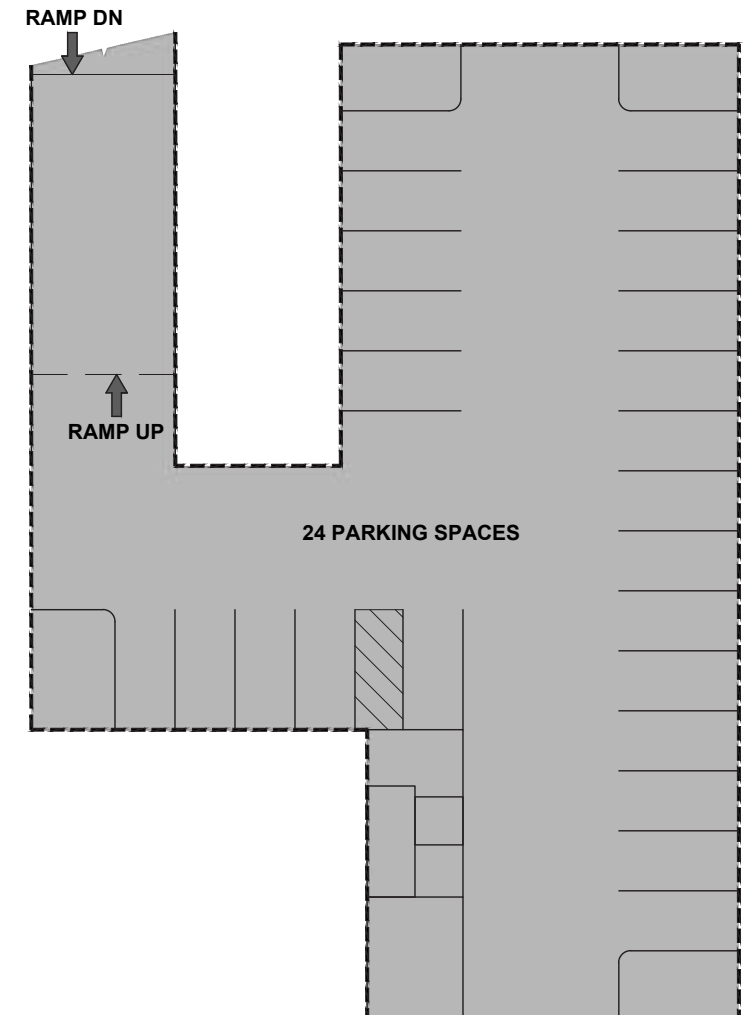




FIRE STATION NO. 1
 2 STORY BUILDING + BASEMENT PARKING
 BASEMENT PARKING AREA: 12,810 S.F.
 1ST FLOOR BUILDING AREA: 9,461 S.F.
 2ND FLOOR BUILDING AREA: 5,920 S.F.
 TOTAL BUILDING AREA: 28,516 S.F.



SECOND FLOOR DIAGRAM
 SCALE: 1/32" = 1'-0"



BASEMENT FLOOR DIAGRAM
 SCALE: 1/32" = 1'-0"

SITE/FIRST FLOOR DIAGRAM
 SCALE: 1/32" = 1'-0"



FIRE STATION NO. 1

NEW LOCATION - 15,700 S.F. - 2 STORY BUILDING & PARKING
PURCHASE NEW PROPERTY AND REPLACE STATION





FIRE STATION 2



CITY OF BERKELEY

FIRE HOUSE NO. 2

2029 BERKELEY WAY, BERKELEY, CA 94704

DRAFT

MAY 08, 2023

PROJECT DESCRIPTION

Fire House No. 2 was expanded to 13,598 SF when it was seismically upgraded in 1995. In this expansion the living quarters were modified to provide space for 8 on-duty personnel per shift and a fifth bay was added. The fire station currently houses 11 personnel per shift and Truck 2 (3), Engine 2 (3), Medic 2 (2), Medic Supervisor (1), Battalion Chief (1) and Medic Trainee (1). The staffing will increase to 13 personnel per shift. The firehouse also houses a Type VI wildland unit and the department's Hazardous Material unit, a reserve truck, reserve engine as well as an utility truck. Several of the units can not be housed in the apparatus bays.

Three options were evaluated. They include:

1. Renovation and expansion of the existing station with a 3rd story to provide 21,000 SF of space. Parking requirements are not met with this solution.
2. Replace station on existing site with one level of roof top parking. Parking requirements are not met.
3. Replace station on existing site with 3 story, 21,000 SF station and two levels of rooftop parking. Parking requirements are met with this solution.

The recommended option for this location is Option 3. All program criteria are met.

The ROM Project Budget for the Recommended Option 3 is \$51-56M; not including escalation beyond 2024.



Fire House No. 2 - Battalion Station
Engine 2, Truck 2, Medic 2, Battalion Chief, EMS Chief
2029 Berkeley Way

CONCEPTUAL SPACE NEEDS OUTLINE

Fire House Company Make-up - Staffing Per shift	Current	Future
Truck 2 - Captain , Engineer, Firefighter/Paramedic	3	4
Engine 2 - Captain, Engineer, Firefighter/Paramedic	3	4
Medic 2 - Medic, EMT	2	2
Battalion Chief - 1	1	1
EMS Chief -1	1	1
Medic Trainee	1	1
Type VI 4X4 - Cross Staffed	0	0
Hazardous Materials Unit - Cross Staffed (May be relocated)	0	0
Truck - Reserve	0	0
Reserve Ambulance	0	0
TOTAL CURRENT AND PLANNED STAFFING:	11	13

No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
SITE OPERATIONS				
	Firefighter Parking	26 firefighter parking spaces, secure and separate from public parking	5,200	10'x20' ea.
	Visitor Parking	One regular and one ADA adjacent to entrance, shared with other public parking areas.	200	10' x 20
	Apparatus Washing Area	Adjacent to hydrant for refill and testing; locate at rear of App. Bays; provide clarifier for run-off	0	rear apron
	Hose Maintenance Area	Use rear apron area for cleaning hose; roll wet and store on apparatus	0	rear apron
	Yard Hydrant	Located at rear yard	0	rear apron
	Generator Area	Located at rear yard	150	10'x15'
	Fueling Area	Above Grade Convault System - 1,500 GA	240	12' x 20'
	Trash Enclosure	Exterior access for service; space for dumpster and recycling bins, Covered	150	10'x15'
	Flagpole	Flagpole area with lighting	25	5'x5'
	Outdoor Patio or Deck	Outdoor uses; adjacent to Kitchen	200	10'x20'

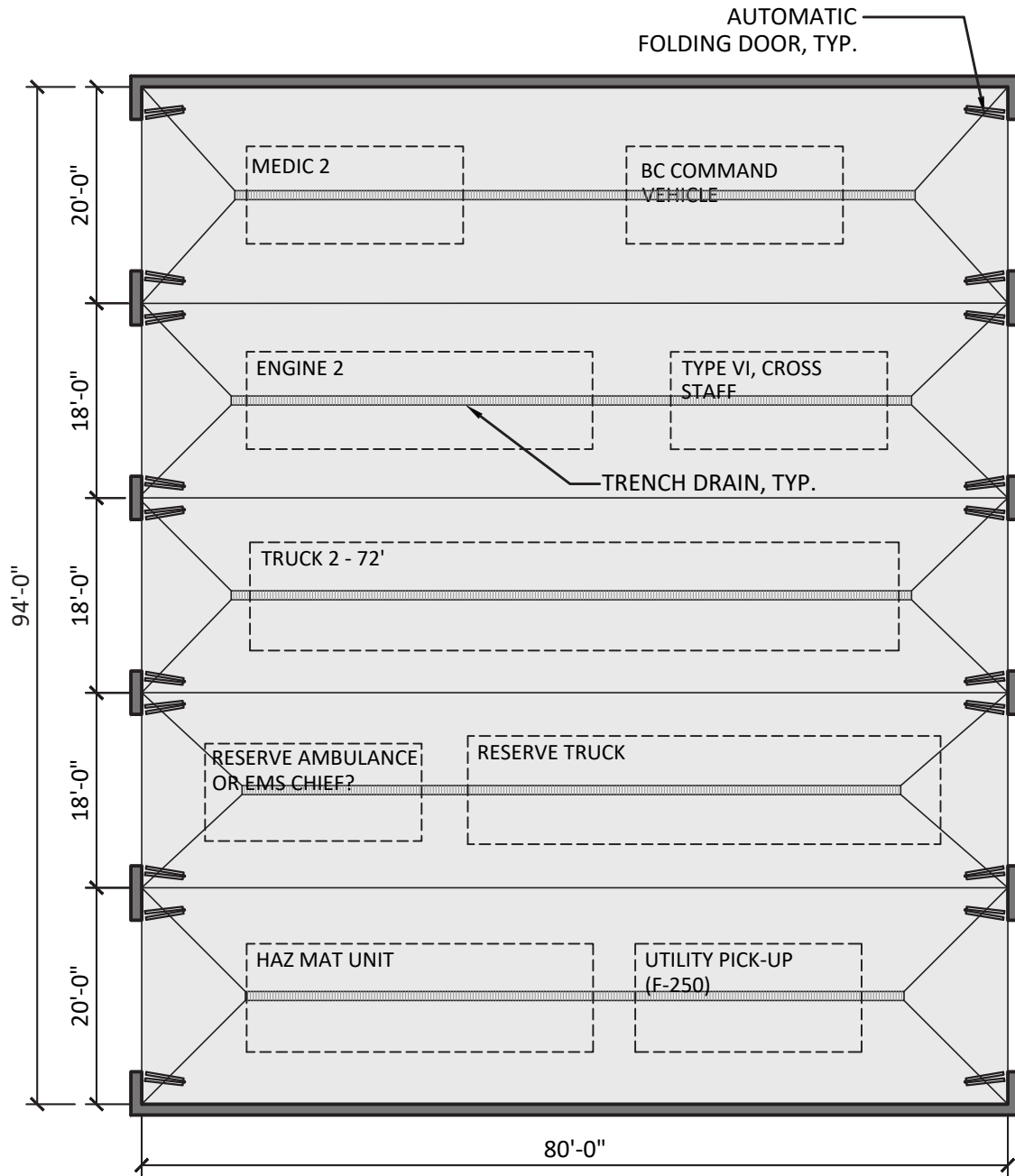
No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
FIRE HOUSE - APP BAY/APP BAY SUPPORT				
1	Apparatus Bay (Two Truck drive through bay, five double bays)	Truck 2, Engine 2, Medic 2, BC Unit - Front line apparatus. , EMS Chief Unit, Haz Mat, Type VI Engine, Reserve truck, reserve ambulance, F-250 Utility Truck. Systems include tailpipe exhaust, power and air cord drops to each vehicle; electric heating system; night lighting; bi-folding auto-close doors; trench drains	7,520	(2) 20'x 80' (3) 18' x 80'
2	Medical Supply Closet	Heavy Duty Shelving; medical supplies off of apparatus bay.	24	3' x 8'
3	Clean Up	Clean-up sink, shelving, Alcove in bay.	18	3' x 6'
4	Equipment Storage	Yard equipment, bike storage (LEED Requirement), compressor	96	8' x 12'
5	Turnout Gear Room	Two lockers for each assigned personnel (13 Personnel per day x 3 = 39); Four unassigned for 82 total lockers. Power at each locker, continuous exhaust fan, floor drain, heavy duty shelving; wildland gear bags. Dirty area in room with Extractor and Dryer, decon shower and hanging area. Part of response return path.	1,200	50' x 24'
6	Janitor Room	Service sink, mop rack; janitorial supplies;	48	6' x 8'
7	Work Shop Alcove	Work bench/shop area for vise, peg board, tool storage with large flat work surface, Misc. equipment storage , tool chest, Full height storage cabinet, shop sink and eyewash.	120	4' x 30'
8	Firefighter Restroom	Fire fighter toilet and sink, off of apparatus bay	64	8'x8'
9	SCBA Air Fill	Four station air fill unit with cascade system, work bench and SCBA tank storage	160	10' x 16'
10	Oxygen Cascade System and storage	Four Unit Oxygen cascade fill station with medical supply storage, work bench and oxygen tank storage. Explosion Proof room.	80	8' x 10'
11	Fitness Room	Dedicated Fitness Room	624	26' x 24'
Fire House - App Bay/Support Subtotal			9,954	

No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
FIRE HOUSE - FIREFIGHTER OFFICES				
12	Fire House Public Lobby	Lobby with seating; adjacent to the public restroom. Service window separation between Watch Office and lobby. Alcove in Lobby for Blood Pressure and other wellness checks.	180	12' x 15'
13	Fire House Public Restroom	One All Gender Restroom, accessible, off of Lobby	64	8'x8'
14	Watch Office	Workstations for 4-persons; provide space for lateral file cabinets (one cabinet per company) copy machine and office supply storage, book shelving; conference function	238	14' x 17'
15	Captains Office (Truck Captain and Engine Captain)	Workstation for 2-persons; provide space for (6) lateral file cabinets.	120	10' x 12'
16	Battalion Chiefs Office	Workstation for 3-persons; provide space for lateral file cabinets, Meeting table for four	288	18' x 16'
17	EMS Chief Office	Workstation for 3-persons; provide space for lateral file cabinets, Meeting table for four	288	18' x 16'
Fire House - Firefighter Offices Subtotal			1,178	
No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
FIRE HOUSE - FIREFIGHTER QUARTERS				
18	Kitchen	3-refrigerators; 3-shift pantries; 1-house pantry and refrigerator; 2-dishwasher; electric induction range/oven with hood; large microwave; large, 12" deep sink with disposer; prep sink at island; trash and recycling areas; coffer service area; open to Dining Area.	378	18' x 21'
19	Dining Area	Seating for 14 persons; wall-mounted TV; open to kitchen; open to Day Room	252	12' x 21'
20	Day Room	Seating for 14 with recliner chairs; entertainment center and book shelving; Open to Dining, one work station along wall.	720	24' x 30'
21	Laundry Room	Service sink; countertop; janitorial supplies; mop rack, Washer/Dryer	140	10' x 14'
22	Firefighter Bedroom	9-separate bedrooms each containing desk, chair, wall-mounted TV, 1 bed with lockers outside door.	689	8'-6" x 9' (9)
23	Firefighter Bathroom ADA	1 accessible restroom with shower, sink, toilet	81	9' x 9'
24	Firefighter Bathrooms	4 restrooms with shower, sink, toilet	256	8' x 8' (4)
25	Captain Bedroom, Bathroom and Work Area, Accessible	2-separate bedrooms each containing desk, chair, wall-mounted TV, 1 bed. One with accessible in-suite bathroom.	500	10' x 11' 9' x 10' 5'x10' (2)
26	BC Bedroom, Bathroom and Work Area, Accessible	1-separate bedrooms each containing desk, chair, wall-mounted TV, 1 bed. One with accessible in-suite bathroom.	250	10' x 11' 9' x 10' 5'x10' (2)
27	EMS Chief Bedroom, Bathroom and Work Area, Accessible	1-separate bedrooms each containing desk, chair, wall-mounted TV, 1 bed. One with accessible in-suite bathroom.	250	10' x 11' 9' x 10' 5'x10' (2)
Fire House - Firefighter Quarters Subtotal			3,516	

No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
UTILITY SUPPORT/VERTICAL CIRCULATION				
28	Mechanical Room	HVAC equipment; hot water heater; fire sprinkler riser	108	9' x 12'
29	Electrical Room	Main service panel, fire alarm panel; sub panels	108	9' X 12'
30	Communications Room	Telephone service racks, alert response system hub, data server hub, radio equipment; security system	170	10' x 17'
31	Stairs	(3x) for each level. Three stairways from the second floor for exiting	864	18' x 8'
32	Fire House Elevator	Elevator and machine room	240	8' x 10' (3)
Utility Support/ Vertical Circulation Subtotal			1,490	

Engine 2, Truck 2, Medic 2, Battalion Chief, EMS Chief: Summary		Program	
	Fire House - App Bay/Bay Support Subtotal	9,954	
	Fire House - Firefighter Offices Subtotal	1,178	
	Fire House - Firefighter Quarters Subtotal	3,516	
	Utility Support/Vertical Circulation Subtotal	1,490	
	BUILDING SUBTOTAL (SF)	16,138	
	Circulation at 30%	4,841	
Engine 2, Truck 2, Medic 2, Battalion Chief, EMS Chief: GRAND TOTAL (SF)		20,979	

FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



1. APPARATUS BAY - 5 DRIVE-THROUGH BAYS (7,520 S.F.)

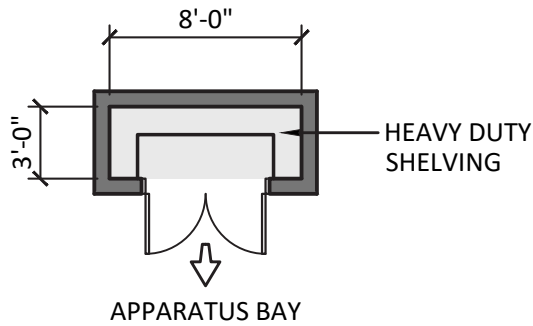
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CITY OF BERKELEY
FIRE HOUSE NO. 2
 ENGINE II, TRUCK II, MEDIC II, BATTALION CHIEF, EMS CHIEF

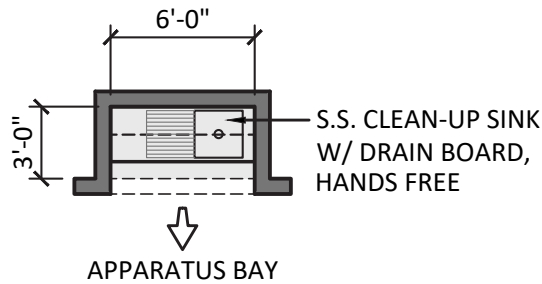


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



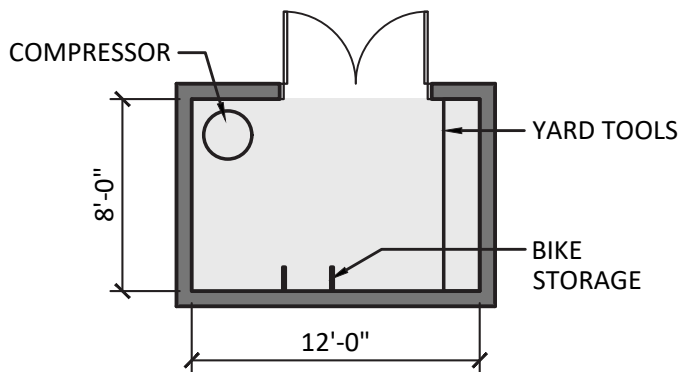
2. MEDICAL SUPPLY CLOSET (24 S.F.)

SCALE: 1/8"=1'-0"



3. CLEAN-UP (18 S.F.)

SCALE: 1/8"=1'-0"



4. EQUIPMENT STORAGE (96 S.F.)

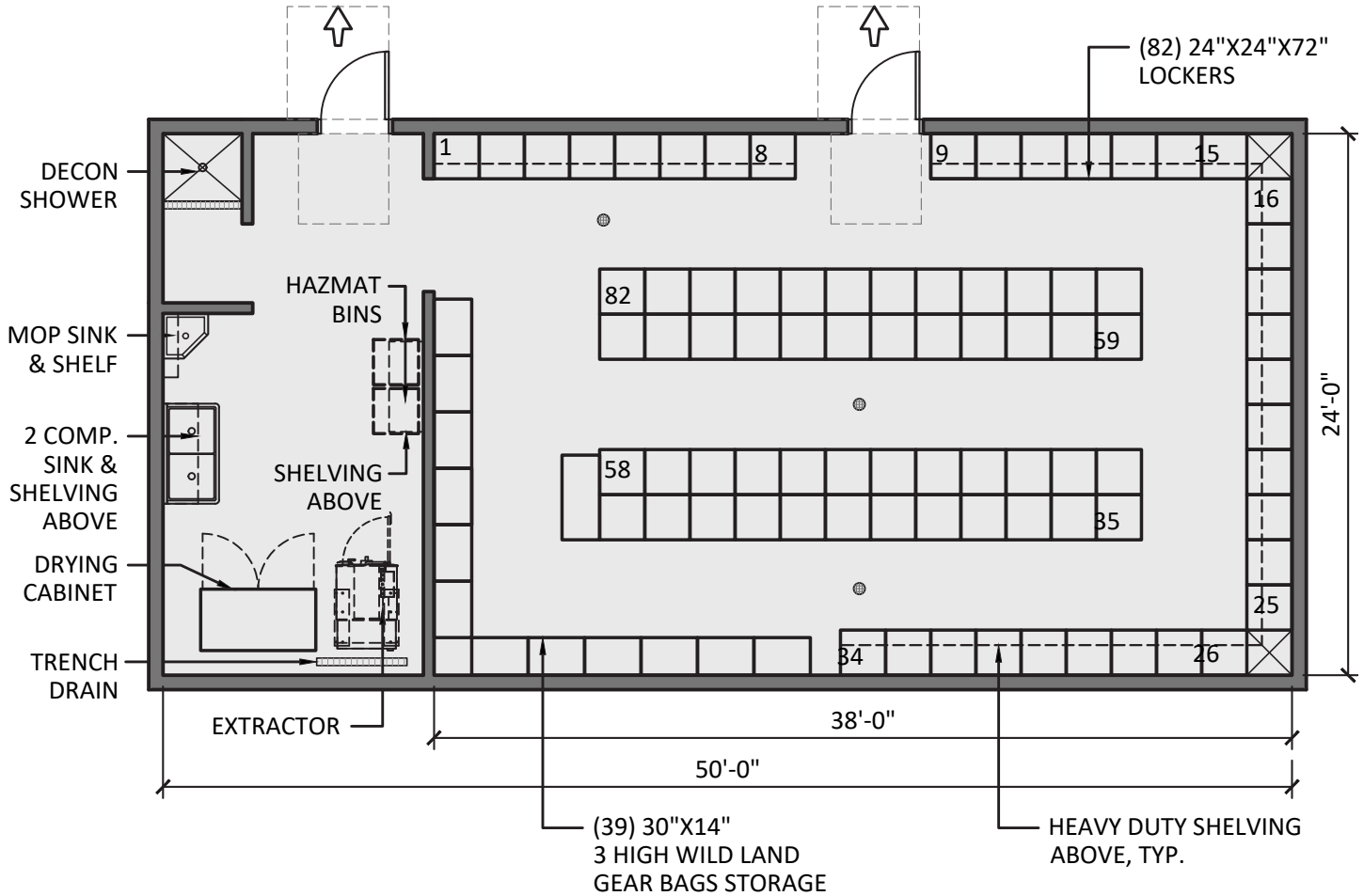
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CITY OF BERKELEY
FIRE HOUSE NO. 2
 ENGINE II, TRUCK II, MEDIC II, BATTALION CHIEF, EMS CHIEF

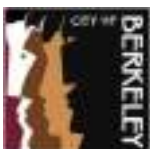


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



5. TURNOUT GEAR ROOM (1,200 S.F.)

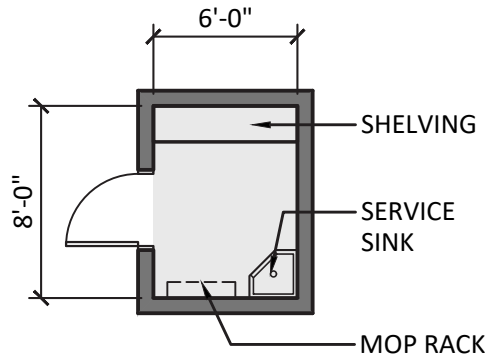
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CITY OF BERKELEY
FIRE HOUSE NO. 2
 ENGINE II, TRUCK II, MEDIC II, BATTALION CHIEF, EMS CHIEF

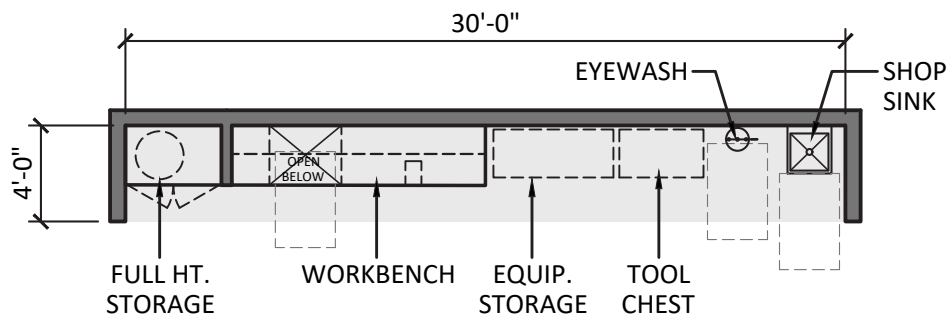


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



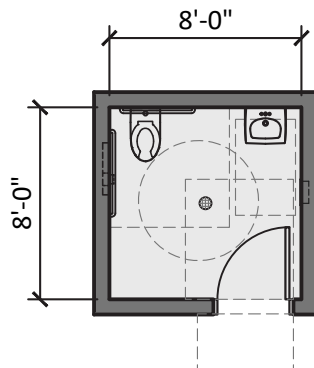
6. JANITOR ROOM (48 S.F.)

SCALE: 1/8"=1'-0"



7. WORKSHOP ALCOVE (120 S.F.)

SCALE: 1/8"=1'-0"



8. FIREFIGHTER RESTROOM (64 S.F.)

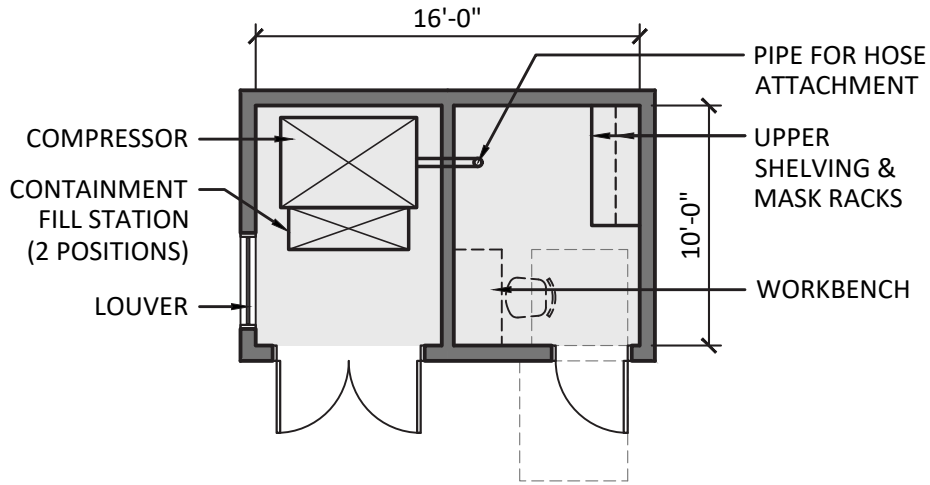
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CITY OF BERKELEY
FIRE HOUSE NO. 2
 ENGINE II, TRUCK II, MEDIC II, BATTALION CHIEF, EMS CHIEF

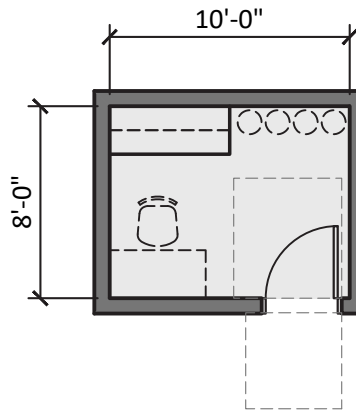


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



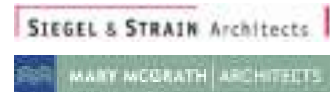
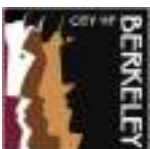
9. SCBA AIR FILL (160 S.F.)

SCALE: 1/8"=1'-0"

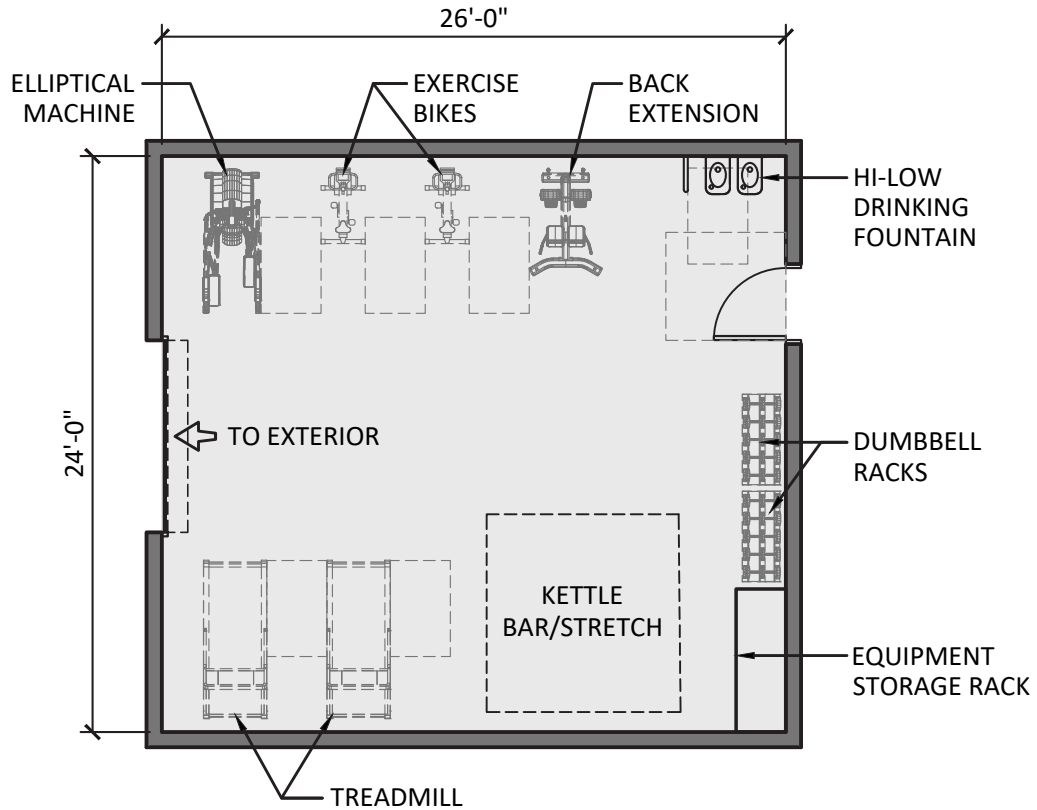


10. OXYGEN CASCADE SYSTEM AND STORAGE (80 S.F.)

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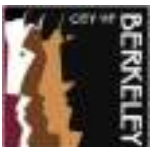


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT

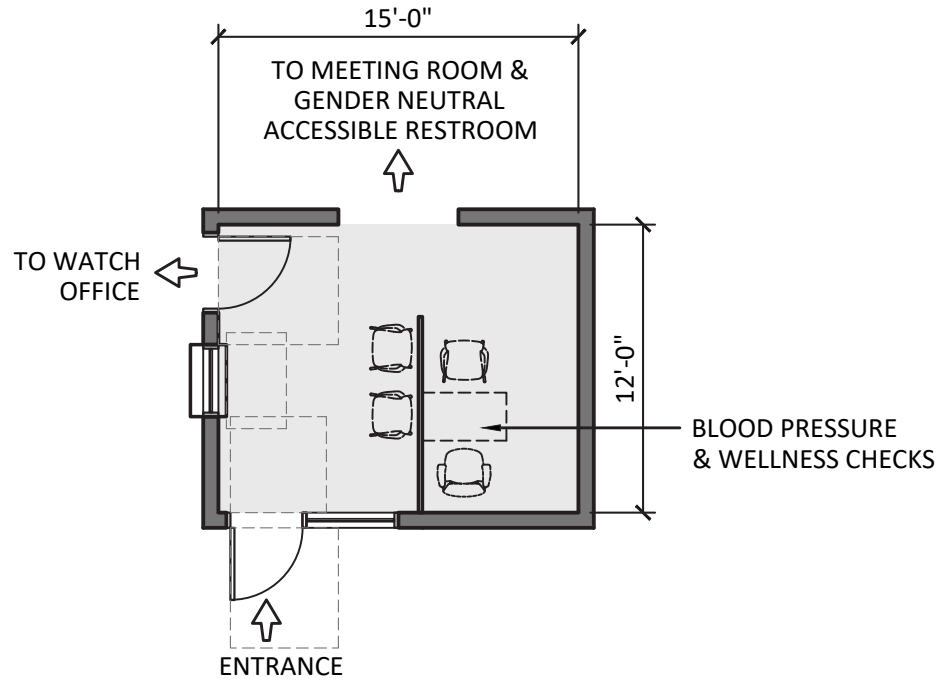


11. FITNESS ROOM (624 S.F.)

SCALE: 1/8"=1'-0"

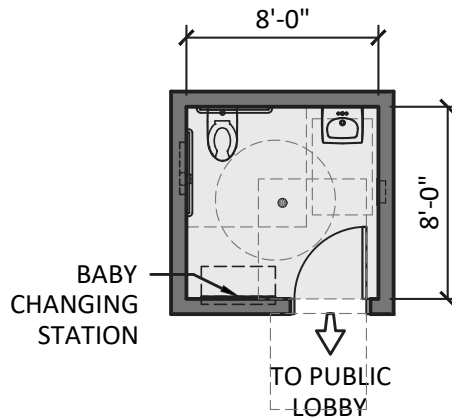


FIRE HOUSE - FIREFIGHTER OFFICES



12. FIRE HOUSE PUBLIC LOBBY (180 S.F.)

SCALE: 1/8"=1'-0"



13. FIRE HOUSE PUBLIC RESTROOM (64 S.F.)

SCALE: 1/8"=1'-0"



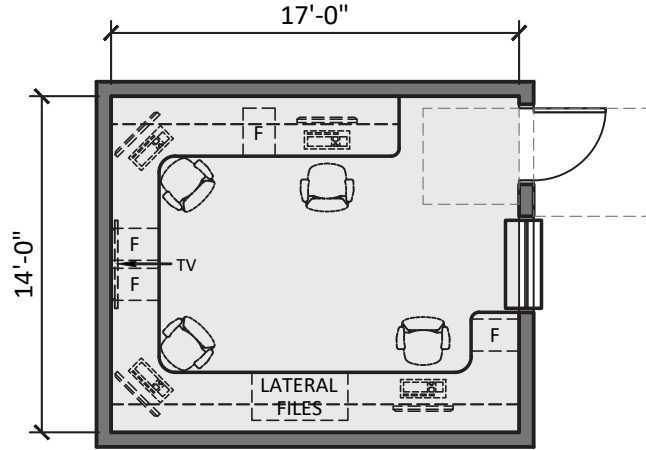
CITY OF BERKELEY

FIRE HOUSE NO. 2

ENGINE II, TRUCK II, MEDIC II, BATTALION CHIEF, EMS CHIEF

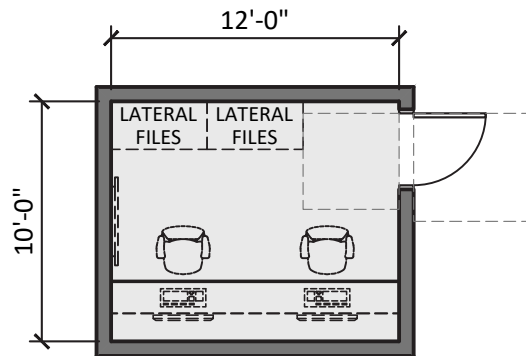


FIRE HOUSE - FIREFIGHTER OFFICES



14. WATCH OFFICE (238 S.F.)

SCALE: 1/8"=1'-0"

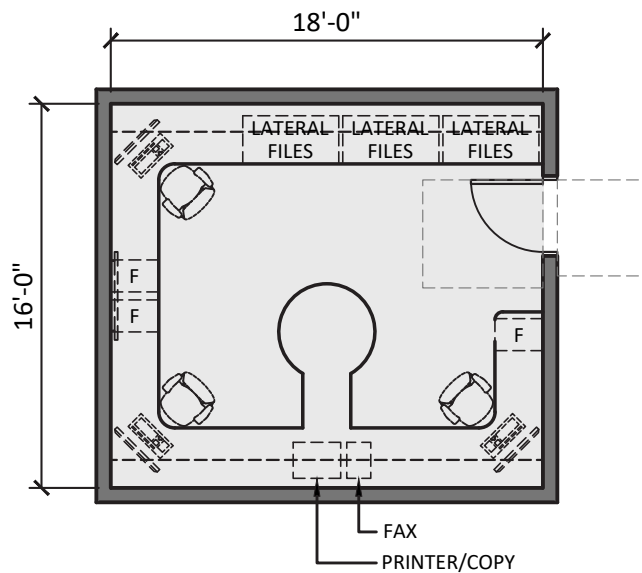


15. CAPTAIN'S OFFICE (120 S.F.)

SCALE: 1/8"=1'-0"



FIRE HOUSE - FIREFIGHTER OFFICES



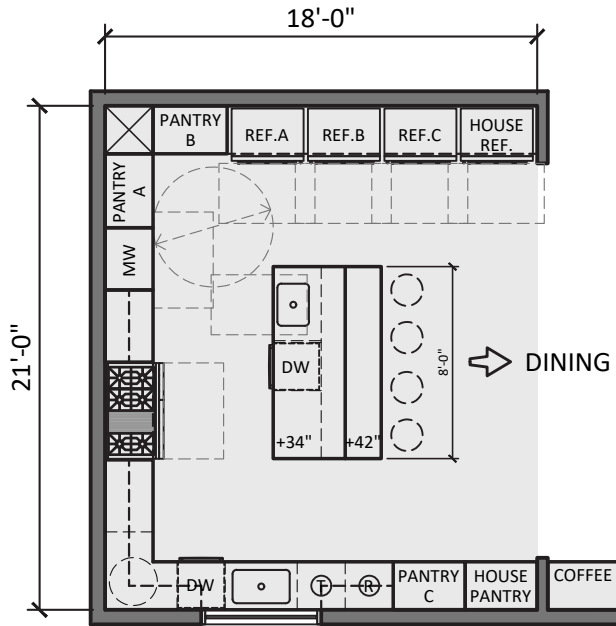
16. BATTALION CHIEFS OFFICE (288 S.F.)

17. EMS CHIEF OFFICE (288 S.F.)

SCALE: 1/8"=1'-0"

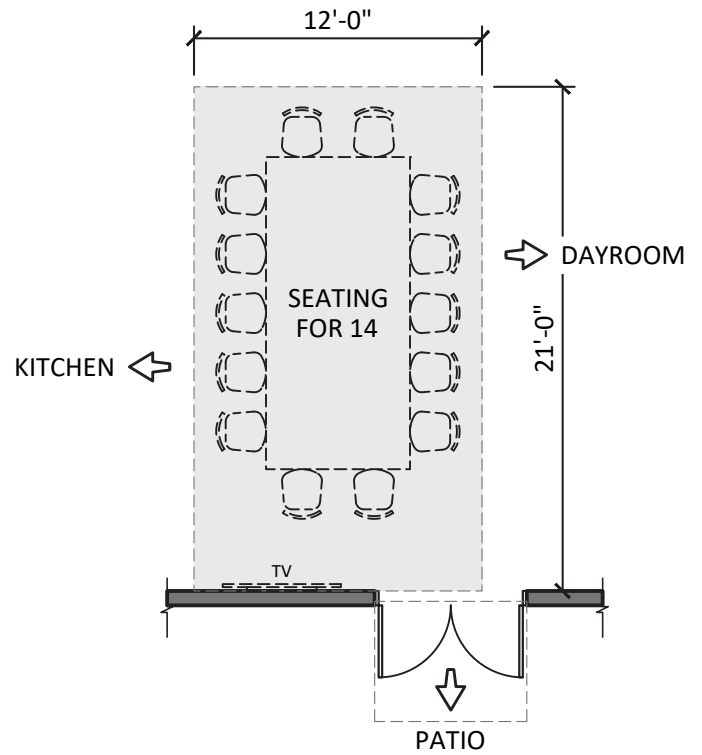


FIRE HOUSE - FIREFIGHTER QUARTERS



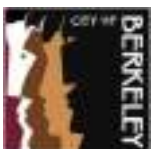
18. KITCHEN (378 S.F.)

SCALE: 1/8"=1'-0"

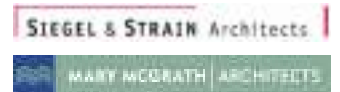


19. DINING AREA (252 S.F.)

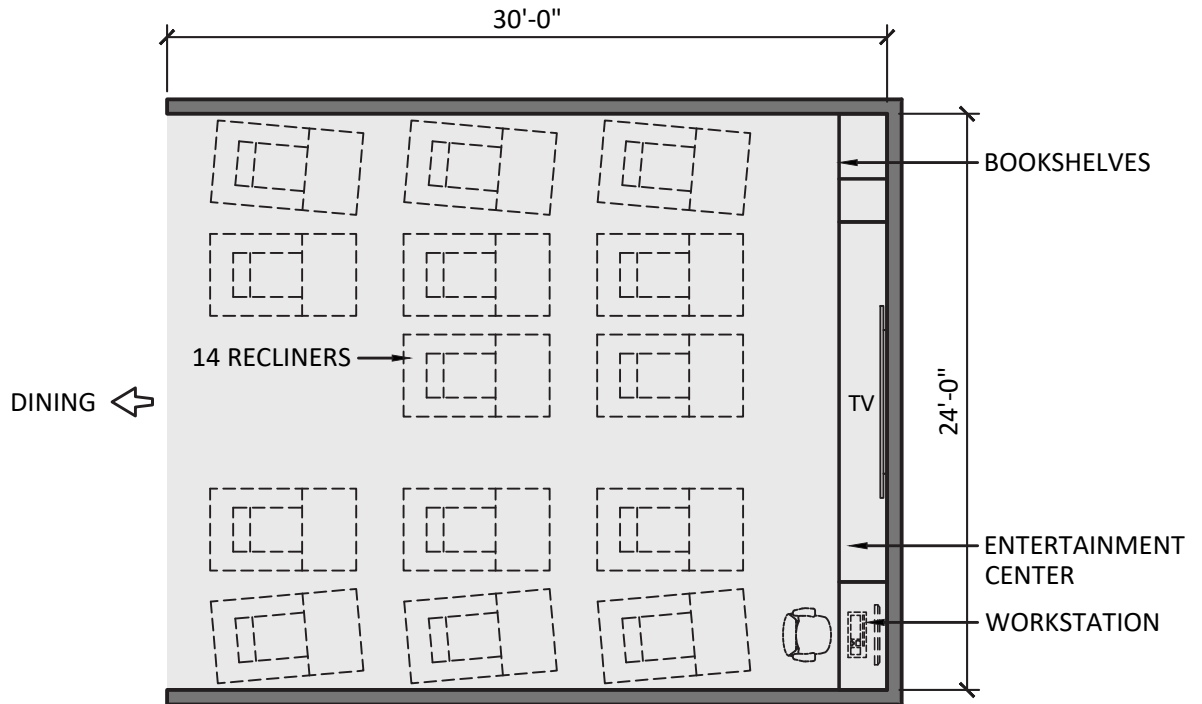
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CITY OF BERKELEY
FIRE HOUSE NO. 2
 ENGINE II, TRUCK II, MEDIC II, BATTALION CHIEF, EMS CHIEF

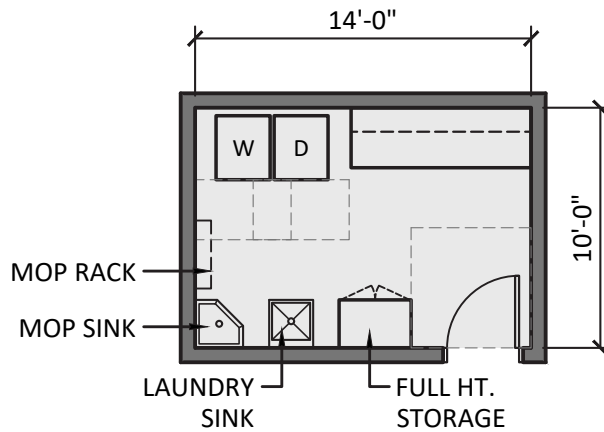


FIRE HOUSE - FIREFIGHTER QUARTERS



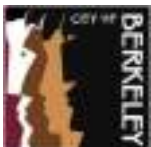
20. DAY ROOM (720 S.F.)

SCALE: 1/8"=1'-0"



21. LAUNDRY ROOM (140 S.F.)

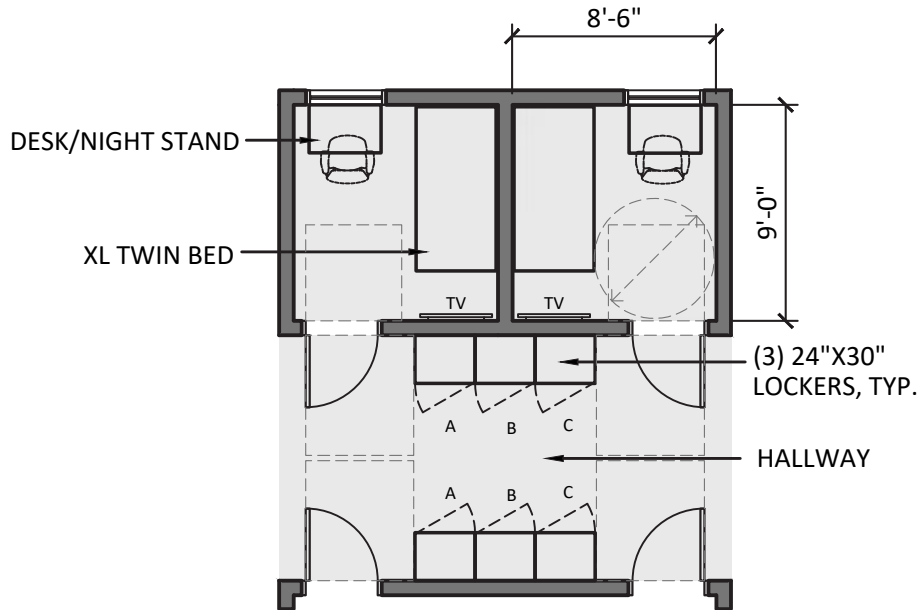
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CITY OF BERKELEY
FIRE HOUSE NO. 2
 ENGINE II, TRUCK II, MEDIC II, BATTALION CHIEF, EMS CHIEF

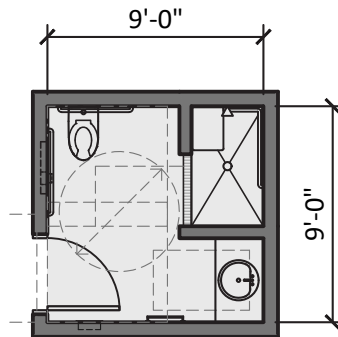


FIRE HOUSE - FIREFIGHTER QUARTERS



22. FIREFIGHTER BEDROOM - 9 (689 S.F.)

SCALE: 1/8"=1'-0"

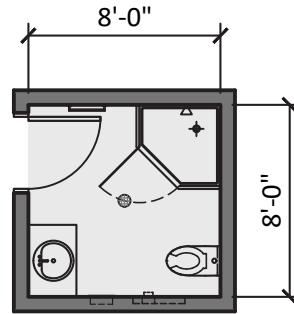


23. FIREFIGHTER BATHROOM - ADA (81 S.F.)

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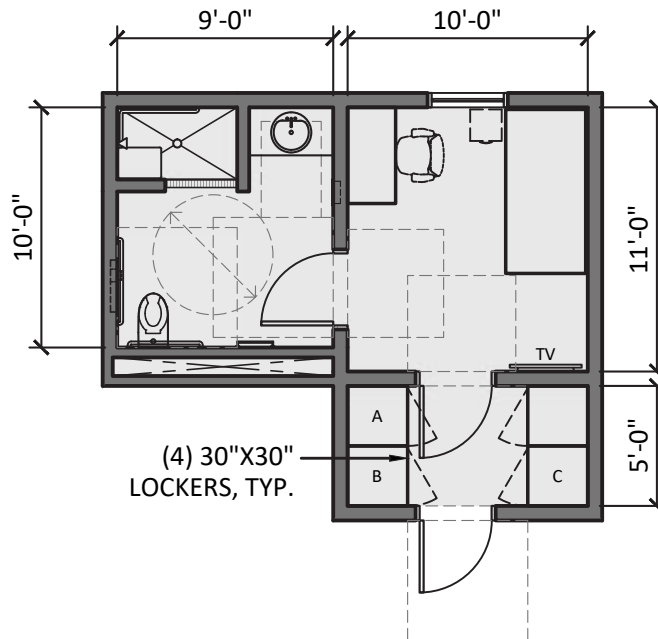


FIRE HOUSE - FIREFIGHTER QUARTERS



24. FIREFIGHTER BATHROOM - 4 (256 S.F.)

SCALE: 1/8"=1'-0"

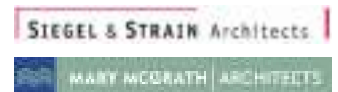


25. CAPTAIN BEDROOM, BATHROOM AND WORK AREA, ACCESSIBLE - 2 (500 S.F.)

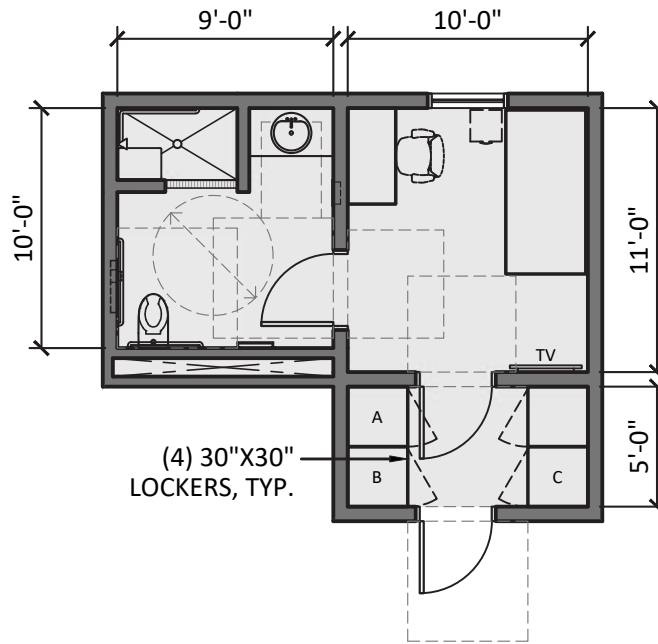
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CITY OF BERKELEY
FIRE HOUSE NO. 2
ENGINE II, TRUCK II, MEDIC II, BATTALION CHIEF, EMS CHIEF



FIRE HOUSE - FIREFIGHTER QUARTERS



26. BC BEDROOM, BATHROOM AND WORK AREA, ACCESSIBLE (250 S.F.)

27. EMS CHIEF BEDROOM, BATHROOM AND WORK AREA, ACCESSIBLE (250 S.F.)

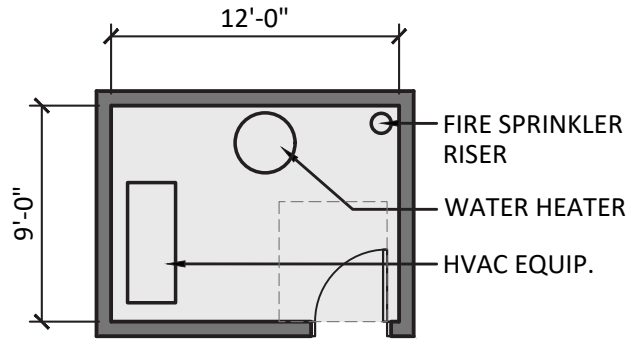
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CITY OF BERKELEY
FIRE HOUSE NO. 2
 ENGINE II, TRUCK II, MEDIC II, BATTALION CHIEF, EMS CHIEF

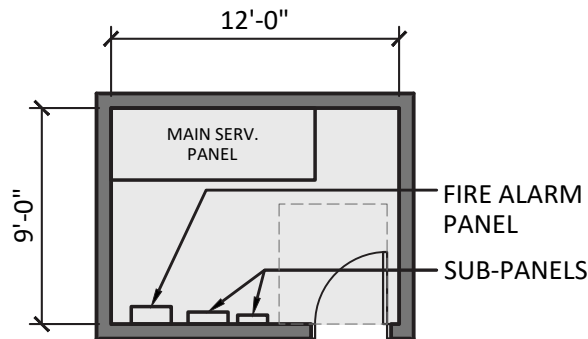


FIRE HOUSE - UTILITY SUPPORT/VERTICAL CIRCULATION



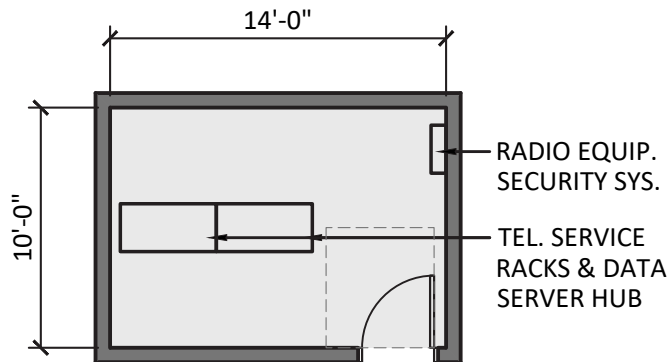
28. MECHANICAL ROOM (108 S.F.)

SCALE: 1/8"=1'-0"



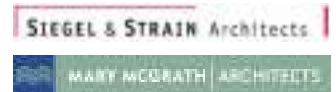
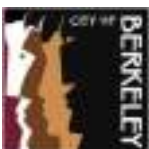
29. ELECTRICAL ROOM (108 S.F.)

SCALE: 1/8"=1'-0"






30. COMMUNICATIONS ROOM (140 S.F.)

SCALE: 1/8"=1'-0"



(E) LOT AREA: 26,000 S.F.
 (E) BUILDING TOTAL AREA: 13,955 S.F.
 PROPOSED ADDED BLDG. AREA: 7,174 S.F.

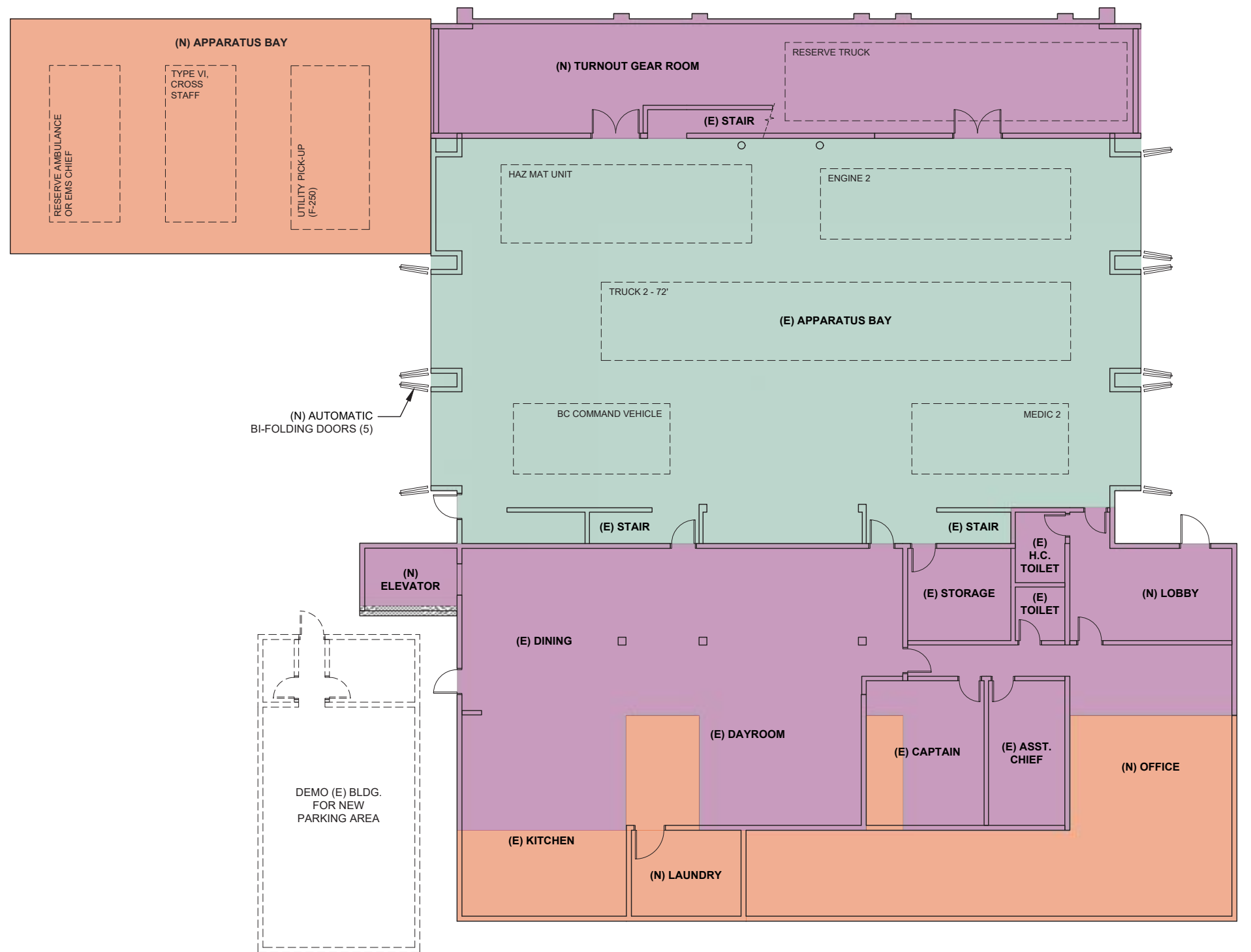
LEGEND:

-  EXISTING BUILDING AREA
-  ADDED BUILDING AREA
-  RENOVATION AREA



SITE/FIRST FLOOR DIAGRAM

SCALE: 1/64" = 1'-0"



FIRST FLOOR DIAGRAM

SCALE: 1/16" = 1'-0"



CITY OF BERKELEY
 FIRE SERVICE MASTER PLAN
 SITE STUDIES

TITLE:

FIRE STATION NO. 2 - (OPTION 1 - BLDG. RENOVATION & ADDITIONAL AREA)
 2029 BERKELEY WAY, BERKELEY, CA 94704

03.17.2023

SIEGEL & STRAIN Architects
 6201 DOYLE STREET, SUITE B,
 EMERYVILLE, CA 94608
 phone: 510.547.8092 | www.siegelstrain.com

MARY MCGRATH ARCHITECTS
 610 16th STREET, SUITE 219, OAKLAND, CA 94612
 phone: 510.208.9400
 www.marymcgratharchitects.com

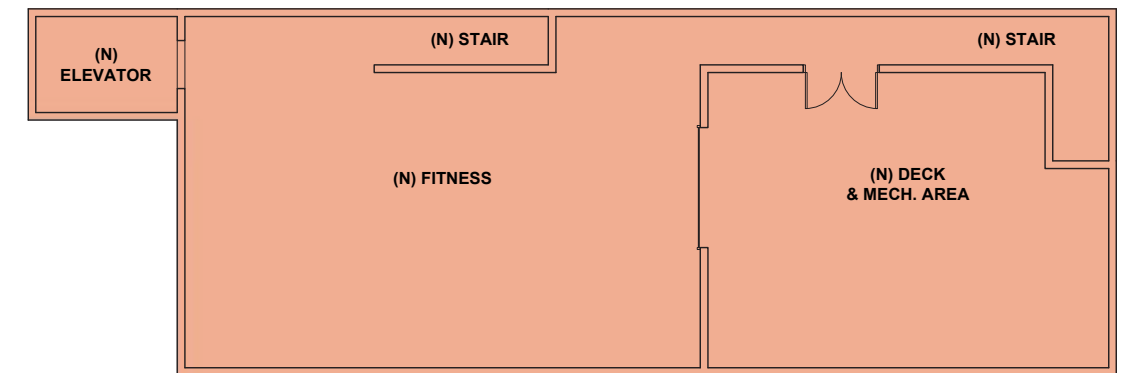


SECOND FLOOR DIAGRAM

SCALE: 1/16" = 1'-0"

LEGEND:

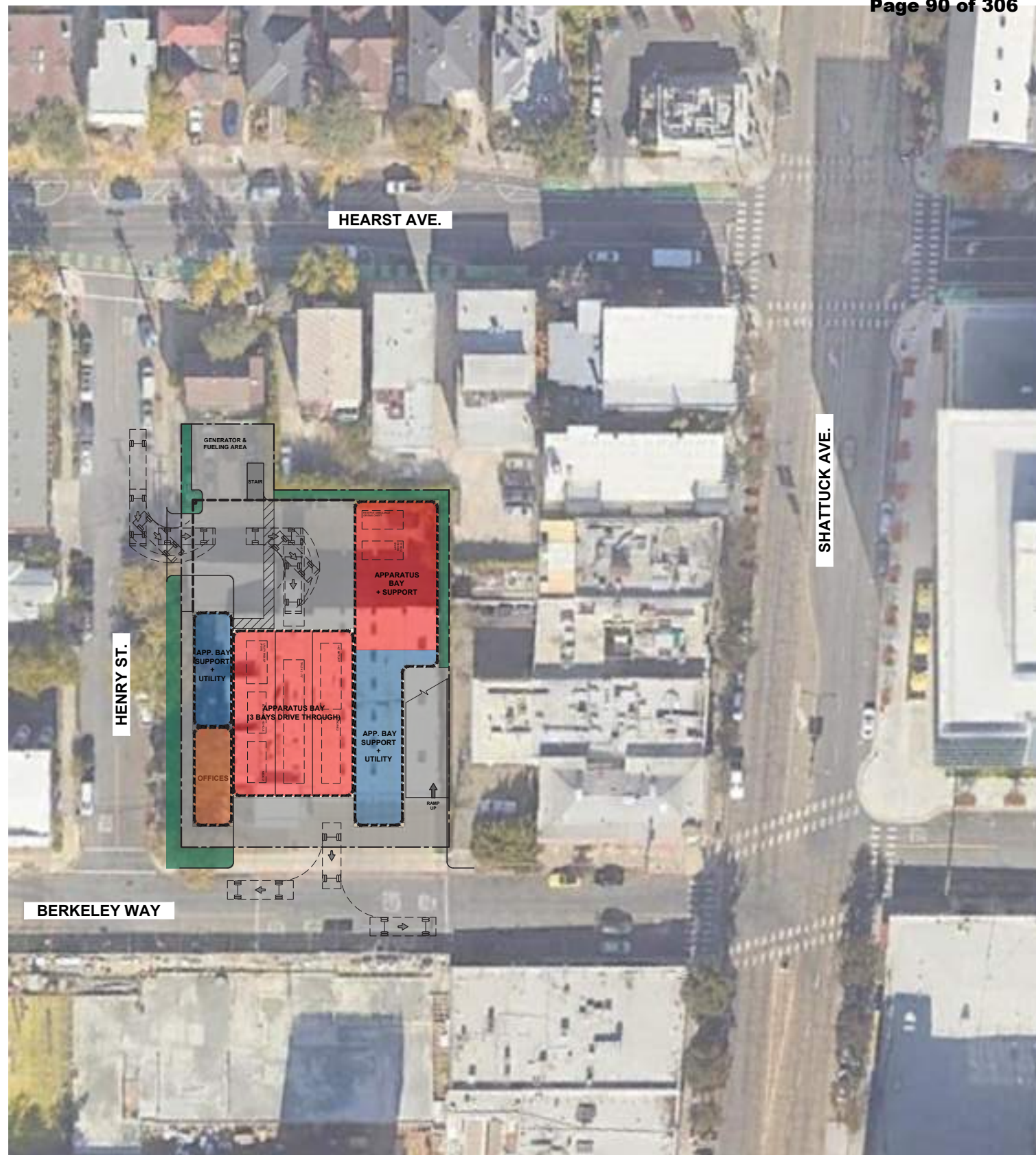
- EXISTING BUILDING AREA
- ADDED BUILDING AREA
- RENOVATION AREA



THIRD FLOOR DIAGRAM

SCALE: 1/16" = 1'-0"





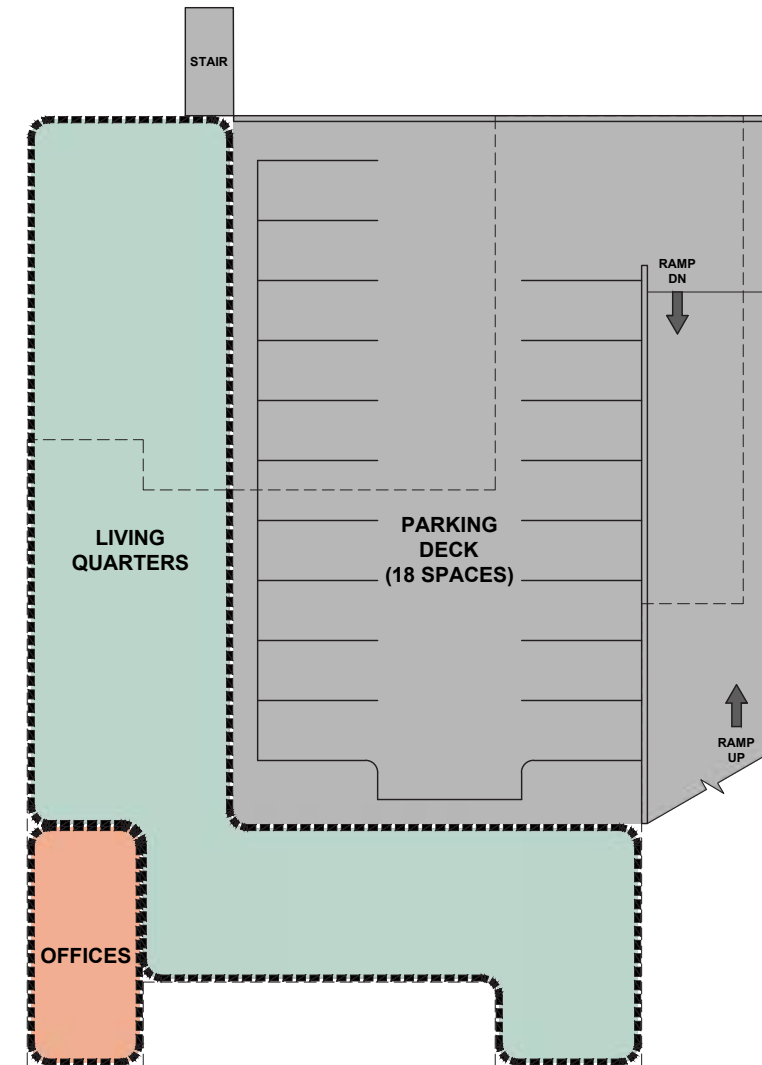
SITE/FIRST FLOOR DIAGRAM

SCALE: 1/64" = 1'-0"

FIRE STATION NO. 2

2 STORY BUILDING

1ST FLOOR BUILDING AREA:	12,070 S.F.
2ND FLOOR BUILDING AREA:	7,374 S.F.
3RD FLOOR BUILDING AREA:	1,535 S.F.
TOTAL BUILDING AREA:	20,979 S.F.



SECOND FLOOR DIAGRAM

SCALE: 1/32" = 1'-0"



THIRD FLOOR DIAGRAM

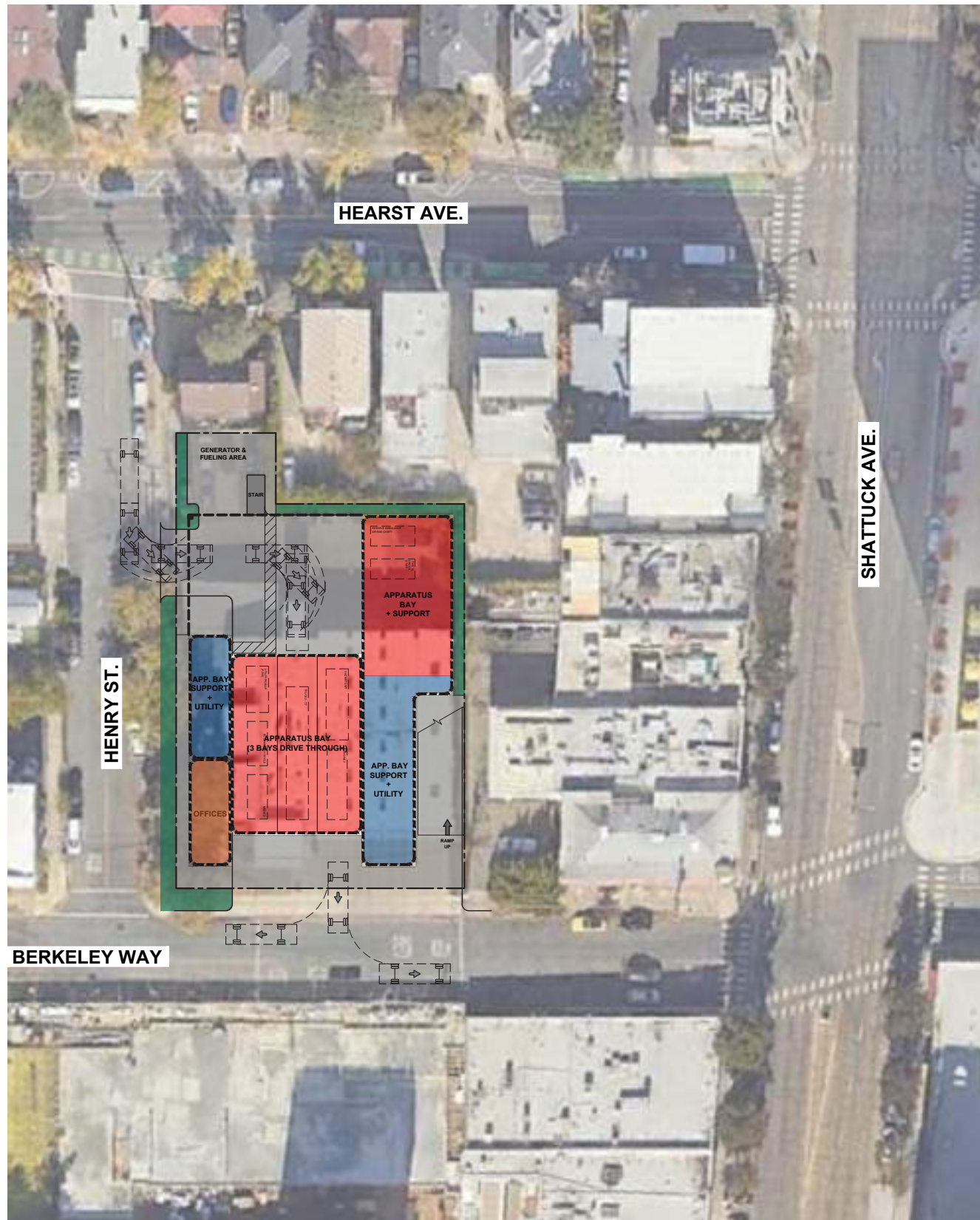
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TITLE:

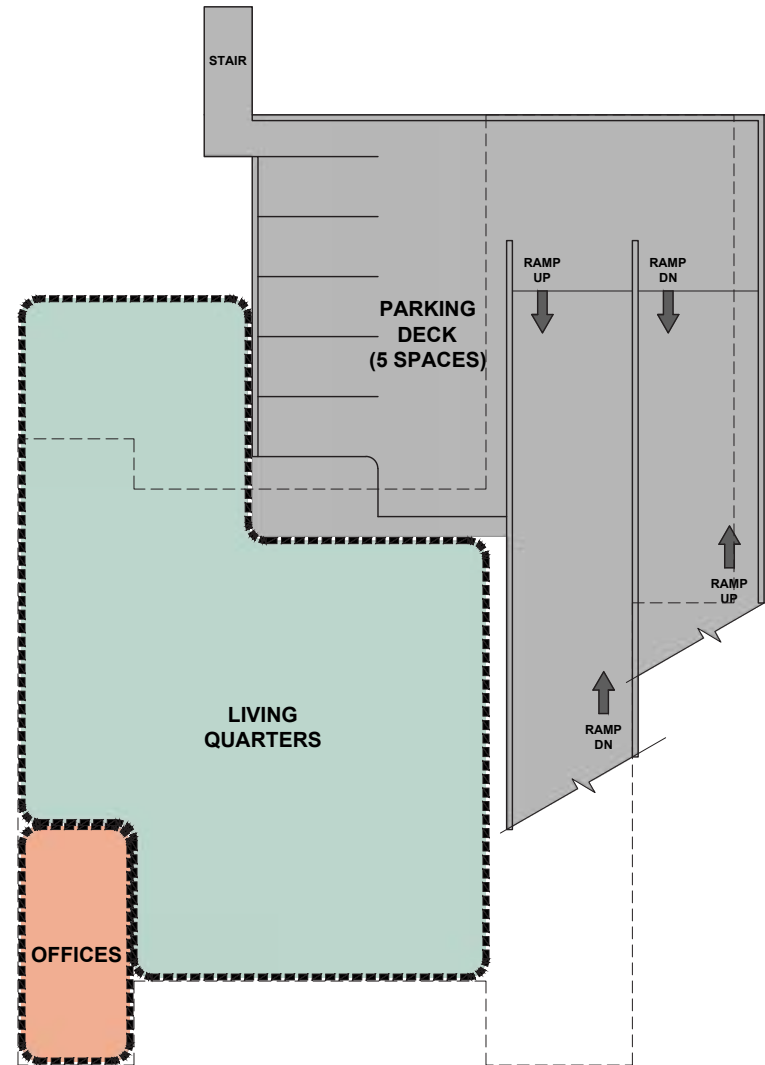
FIRE STATION NO. 2
2 STORY BUILDING

1ST FLOOR BUILDING AREA: 12,070 S.F.
2ND FLOOR BUILDING AREA: 7,336 S.F.
3RD FLOOR BUILDING AREA: 1,573 S.F.
TOTAL BUILDING AREA: 20,979 S.F.



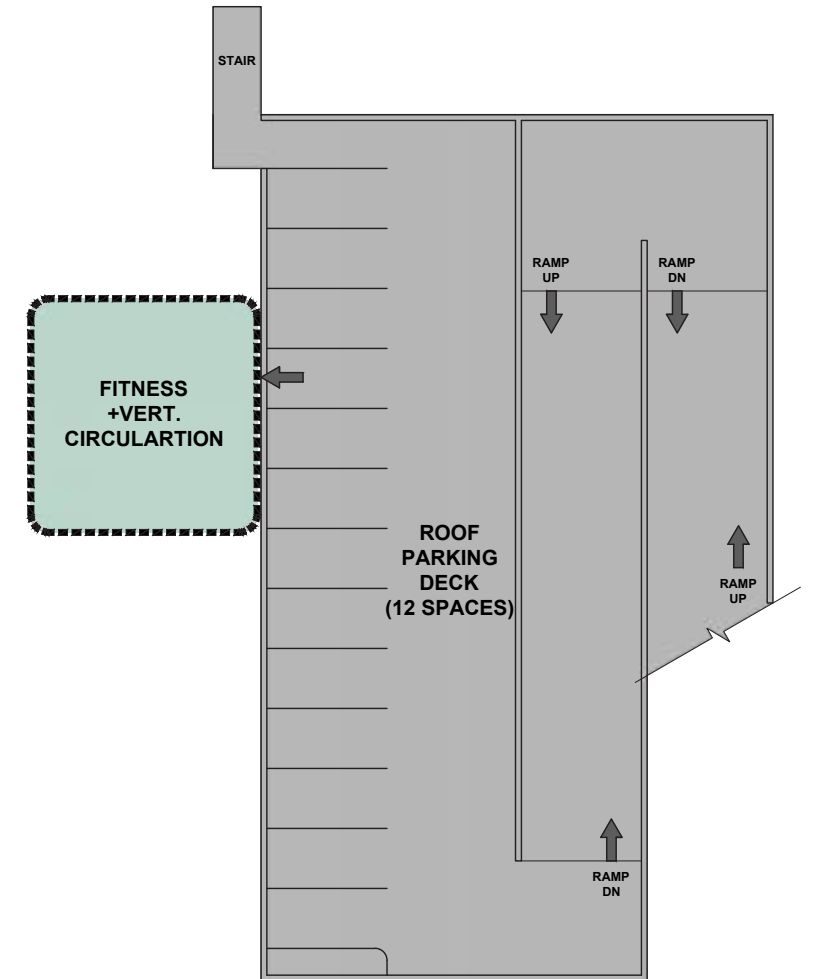
SITE/FIRST FLOOR DIAGRAM

SCALE: 1/64" = 1'-0"



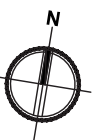
SECOND FLOOR DIAGRAM

SCALE: 1/32" = 1'-0"



THIRD FLOOR/ROOF DECK DIAGRAM

SCALE: 1/32" = 1'-0"





FIRE STATION 3



CITY OF BERKELEY
FIRE HOUSE NO. 3

2710 RUSSELL STREET, BERKELEY, CA 94705

DRAFT
MAY 08, 2023

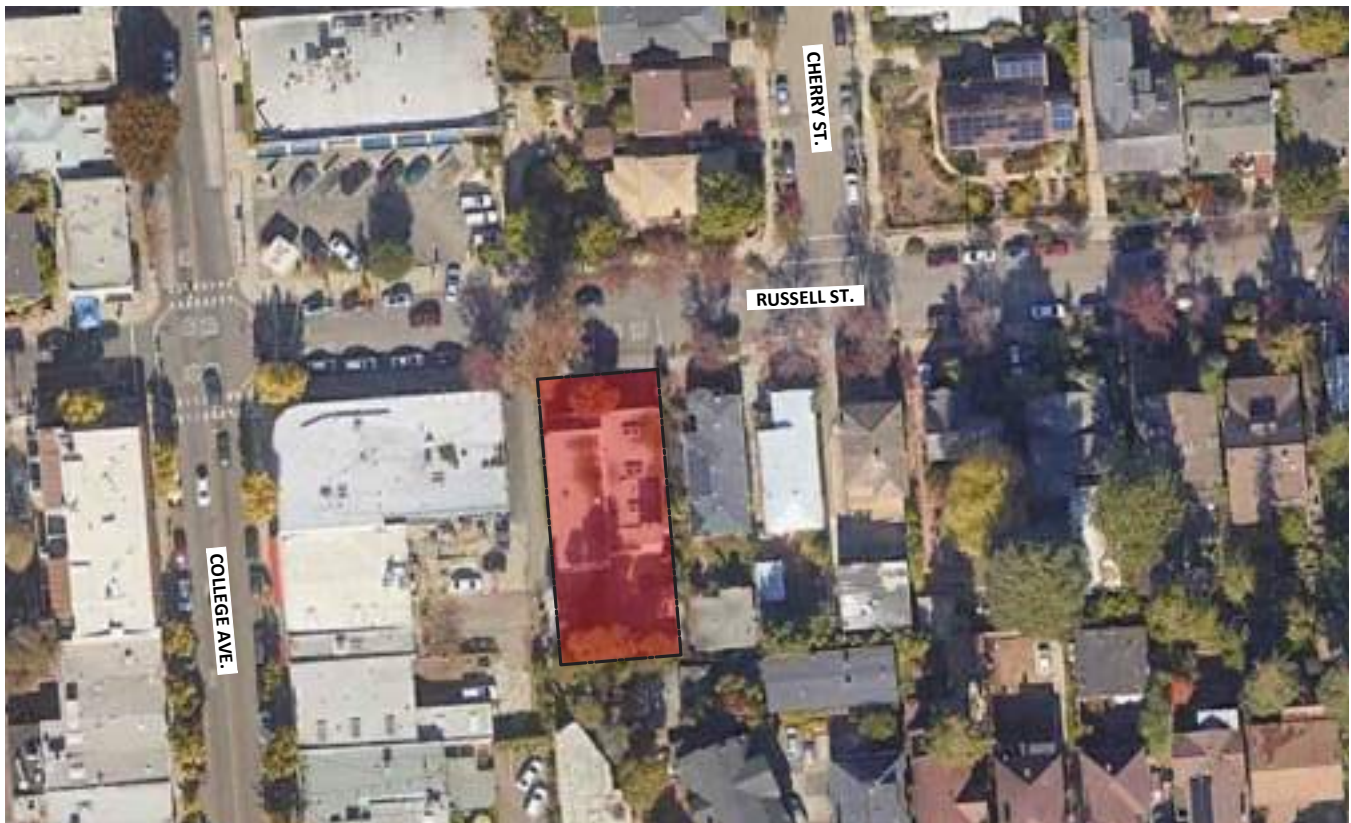
PROJECT DESCRIPTION

The existing Fire House No. 3 is a two-story, 5,582 SF station and was originally designed in 1961 to provide operational space and living quarters for three personnel. The facility was seismically retrofitted in the 1990's. The fire station currently houses 6 personnel per shift and the units include Engine 3(3), Medic 3 (2) and Medic Trainee (1). The staffing is anticipated to increase to 7 personnel per shift.

Because this station is not anticipated to add a new unit, only a new staff member, it is a strong candidate for renovation and addition. The recommended solution includes:

1. Renovation of the entire station and expand the first level to provide a private station office and dedicated turnout storage and expand the second level to add dedicated fitness room. The expanded area is 611 SF for a total expanded and renovated area of 6,193 SF.

The ROM Project Budget for the Recommended Option is \$12-16M; not including escalation beyond 2024.



Fire House No. 3
Engine 3, Ambulance (Medic 3)
2710 Russel Street

CONCEPTUAL SPACE NEEDS OUTLINE

Fire House Company Make-up - Staffing Per shift	Current	Future
Engine 3 - Captain, Engineer, Firefighter/Paramedic	3	4
Ambulance (Medic 3)	2	2
Medic Intern	1	1
Reserve Ambulance	0	0
TOTAL CURRENT AND FUTURE STAFFING:	6	7

No.	Type of Space	Space Attributes	Square Footage	
SITE OPERATIONS			Program	Size
	Firefighter Parking	14 firefighter parking spaces, secure and separate from public parking	3,200	10'x20' ea.
	Visitor Parking	One regular and one ADA adjacent to entrance, shared with other public parking areas.	600	10' x 20
	Apparatus Washing Area	Adjacent to hydrant for refill and testing; locate at rear of App. Bays; provide clarifier for run-off	0	rear apron
	Hose Maintenance Area	Use rear apron area for cleaning hose; roll wet and store on apparatus	0	rear apron
	Yard Hydrant	Located at rear yard	0	rear apron
	Generator Area	Located at rear yard	150	10'x15'
	Fueling Area	Above Grade Convault System - 500 GA located at	240	12' x 20'
	Trash Enclosure	Exterior access for service; space for dumpster and recycling bins, Covered	150	10'x15'
	Flagpole	Flagpole area with lighting	25	5'x5'
	Outdoor Patio	Outdoor uses; adjacent to Kitchen	200	10'x20'

No.	Type of Space	Space Attributes	Square Footage		Renovation SF
			Replacement Program	Size	
FIRE HOUSE - APP BAY/APP BAY SUPPORT					
1	Apparatus Bay (One Engine and two ambulance) Two Double Bays	Engine, Ambulance and Reserve Ambulance. Systems include tailpipe exhaust, power and air cord drops to each vehicle; electric heating system; night lighting; bi-folding auto-close doors; trench drains	2,720	(2) 20' x 68'	1,611
2	Medical Supply Closet	Heavy Duty Shelving; medical supplies off of apparatus bay.	24	3' x 8'	15
3	Clean Up	Clean-up sink, shelving, Alcove in bay.	18	3' x 6'	included in T.O.
4	Equipment Storage	Yard equipment, bike storage (LEED Requirement), compressor	64	8' x 8'	NIC
5	Turnout Gear Room	Two lockers for each assigned personnel (7 Personnel per day x 3 = 21 x 2= 42 lockers); Three unassigned for 45 total lockers. Power at each locker, continuous exhaust fan, floor drain, heavy duty shelving; wildland gear bags. Dirty area in room with Extractor and Dryer, decon shower and hanging area. Part of response return path.	930	14' x 24' 27' x 22'	384
6	Janitor Room	Service sink, mop rack; janitorial supplies;	48	6' x 8'	25
7	Work Shop Alcove	Work bench/shop area for vise, peg board, tool storage with large flat work surface, Misc. equipment storage , tool chest, Full height storage cabinet, shop sink and eyewash.	120	4' x 30'	50
8	Firefighter Restroom	Fire fighter toilet and sink, off of apparatus bay	64	8' x 8'	NIC
9	Fitness Room	Dedicated Fitness Room	624	24' x 26'	384
Fire House - App Bay/Support Subtotal			4,612		2,469

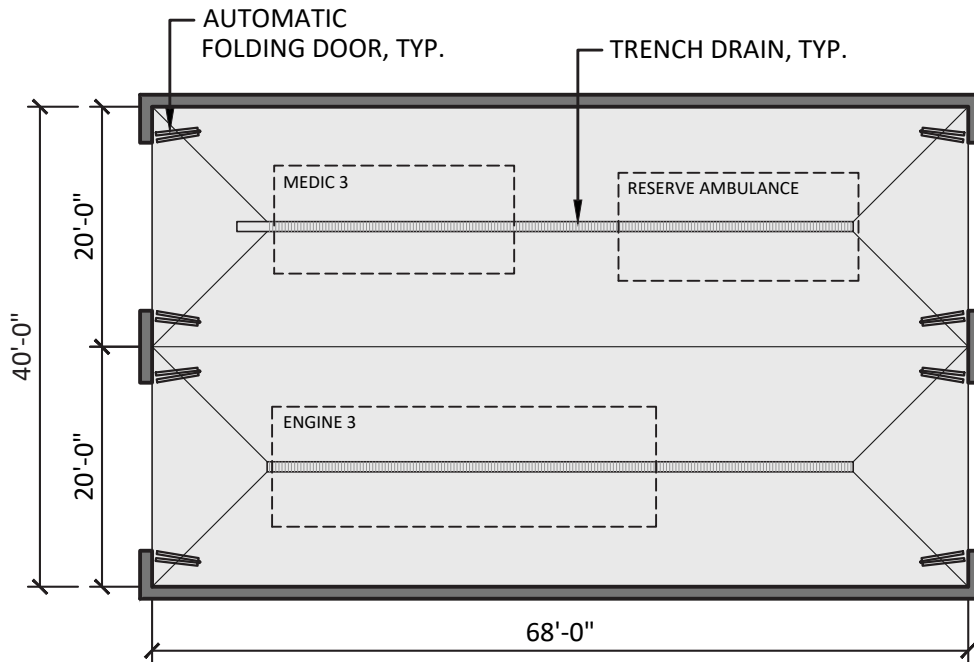
No.	Type of Space	Space Attributes	Square Footage		Renovation SF
			Replacement Program	Size	
FIRE HOUSE - FIREFIGHTER OFFICES					
10	Fire House Public Lobby	Lobby with seating; adjacent to the public restroom. Service window separation between Watch Office and lobby. Alcove in Lobby for Blood Pressure and other wellness checks.	180	12' x 15'	117
11	Fire House Public Restroom	One All Gender Restroom, accessible, off of Lobby	64	8'x8'	51
12	Watch Office	Workstations for 2-persons; provide space for lateral file cabinets (one cabinet per company) copy machine and office supply storage, book shelving; conference function	238	14'x17'	170
13	Captains Office	Workstation for 2-persons; provide space for lateral file cabinets.	120	12' x 10'	Use Watch Office
Fire House - Firefighter Offices Subtotal			602		338

No.	Type of Space	Space Attributes	Square Footage		Renovation SF
			Replacement Program	Size	
FIRE HOUSE - FIREFIGHTER QUARTERS					
14	Kitchen	3-refrigerators; 3-shift pantries; 1-house pantry and refrigerator; 1-dishwasher; electric induction range/oven with hood; large microwave; large, 12" deep sink with disposer; prep sink at island; trash and recycling areas; coffer service area; open to Dining Area	378	18' x 21'	219
15	Dining Area	Seating for 8 persons; wall-mounted TV; open to kitchen; open to Day Room	216	12' x 18'	213
16	Day Room	Seating for 8 with recliner chairs; entertainment center and book shelving; Open to Dining, one work station along wall.	576	24' x 24'	213
17	Laundry Room	Service sink; countertop; janitorial supplies; mop rack, Washer/Dryer	140	10' x 14'	96
18	Firefighter Bedroom	5-separate bedrooms each containing desk, chair, wall-mounted TV, 1 bed with lockers in the hall adjacent the room.	383	8.5' x 9' (5)	437
19	Intern Bedroom	1 bedroom each containing desk, chair, wall-mounted TV, 1 bed with lockers the hall adjacent the room.	77	8.5' x 9'	86
20	Firefighter Bathroom ADA	1 accessible restroom with shower, sink, toilet	81	9' x 9'	81
21	Firefighter Bathrooms	3 restrooms with shower, sink, toilet	192	8' x 8' (3)	59
22	Captain Bedroom, Bathroom and Work Area, Accessible	1 bedroom containing desk, chair, wall-mounted TV, 1 bed, with accessible in-suite bathroom.	250	10' x 16' 10' x 9' (1)	227
Fire House - Firefighter Quarters Subtotal			2,292		1,631

No.	Type of Space	Space Attributes	Square Footage		Renovation SF
			Replacement Program	Size	
UTILITY SUPPORT/VERTICAL CIRCULATION					
23	Mechanical Room	HVAC equipment; hot water heater; fire sprinkler riser	108	9' x 12'	NIC
24	Electrical Room	Main service panel, fire alarm panel; sub panels	108	9' X 12'	NIC
25	Communications Room	Telephone service racks, alert response system hub, data server hub, radio equipment; security system	140	10' x 14'	NIC
26	Stairs	(2x) for each level. Two stairways from the second floor for exiting	576	18' x 8'	166
27	Fire House Elevator	Elevator and machine room	240	8' x 10' (3)	NIC
Utility Support/ Vertical Circulation Subtotal			1,172		166

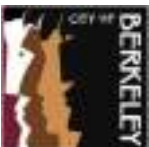
Engine 3, Medic 3, Reserve Ambulance: Summary		Replacement Program		Renovation SF
	Fire House - App Bay/Bay Support Subtotal	4,612		2,469
	Fire House - Firefighter Offices Subtotal	602		338
	Fire House - Firefighter Quarters Subtotal	2,292		1,631
	Utility Support/Vertical Circulation Subtotal	1,172		166
	BUILDING SUBTOTAL (SF)	8,678		4,604
	Circulation at 30%	2,603		1,589
Engine 3, Medic 3, Reserve Ambulance: GRAND TOTAL (SF)		11,281		6,193

FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT

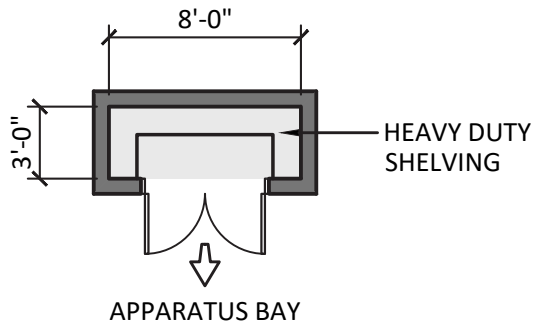


1. APPARATUS BAY - 2 DRIVE-THROUGH BAYS (2,720 S.F.)

SCALE: 1/16"=1'-0"

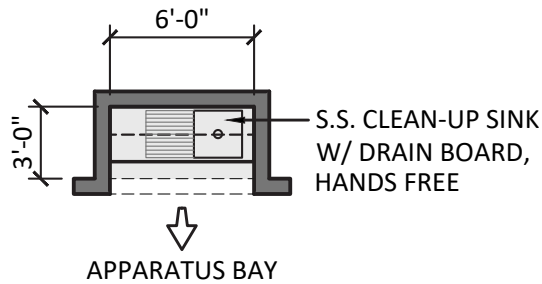


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



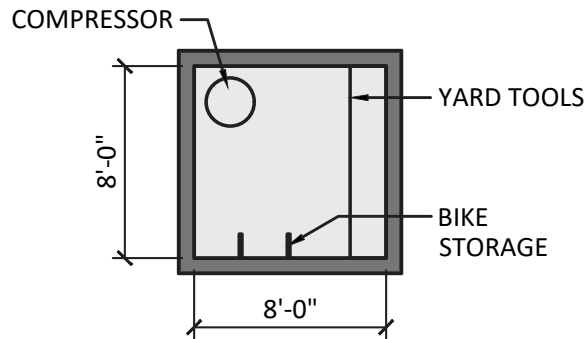
2. MEDICAL SUPPLY CLOSET (24 S.F.)

SCALE: 1/8"=1'-0"



3. CLEAN-UP (18 S.F.)

SCALE: 1/8"=1'-0"

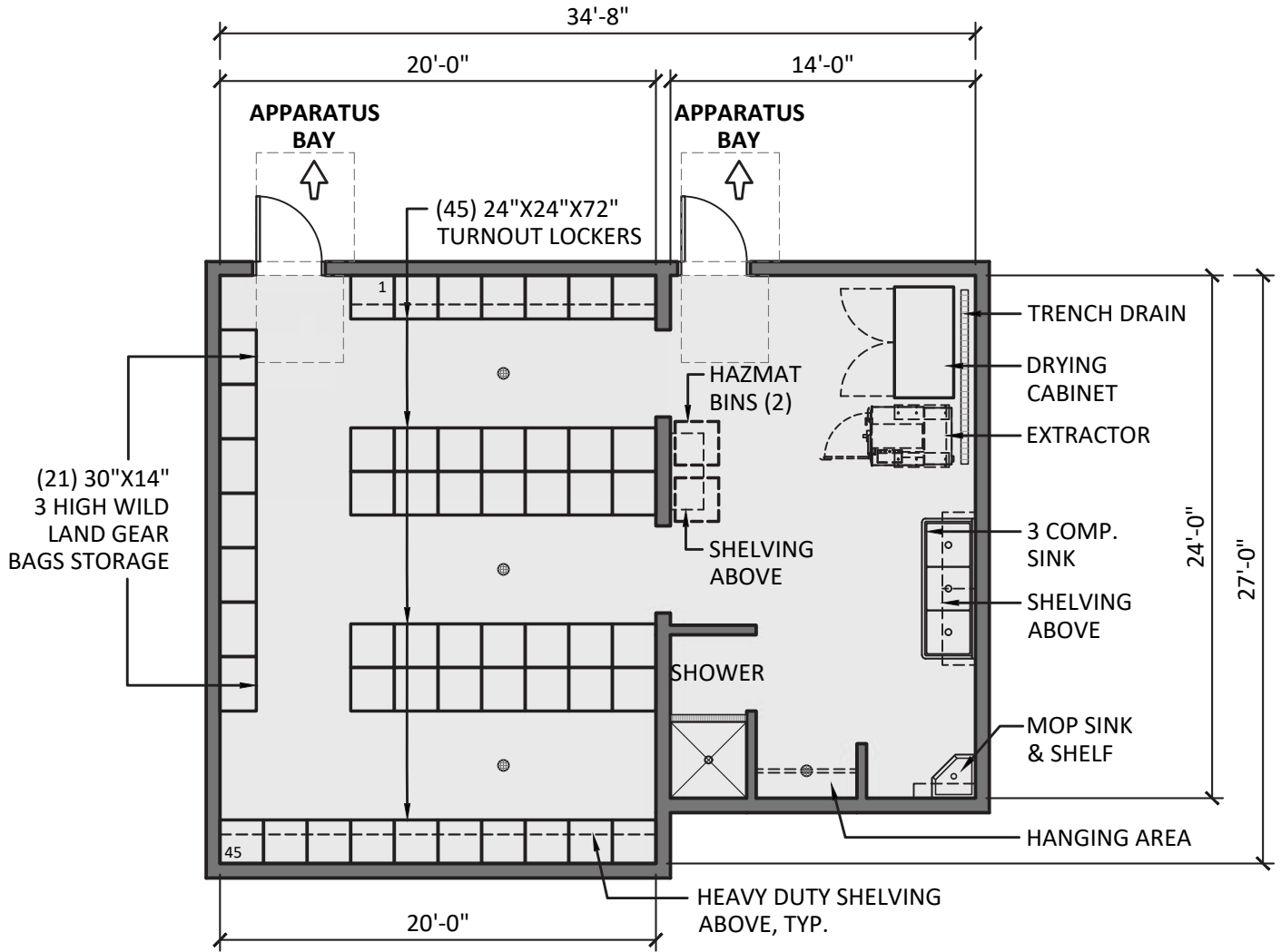


4. EQUIPMENT STORAGE (64 S.F.)

SCALE: 1/8"=1'-0"

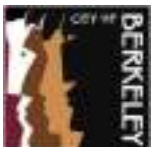


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



5. TURNOUT GEAR ROOM (930 S.F.)

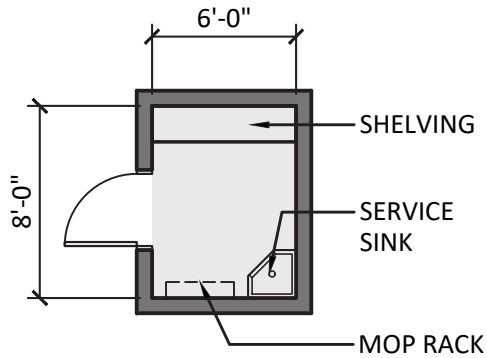
SCALE: 1/8"=1'-0"



CITY OF BERKELEY
FIRE HOUSE NO. 3
 ENGINE 3, AMBULANCE (MEDIC 3)

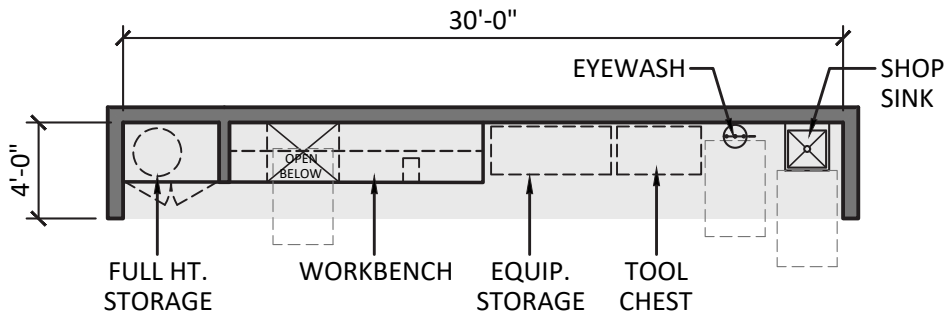


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



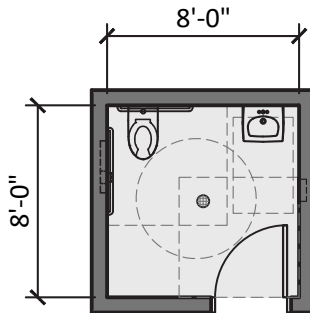
6. JANITOR ROOM (48 S.F.)

SCALE: 1/8"=1'-0"



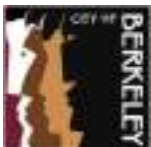
7. WORKSHOP ALCOVE (120 S.F.)

SCALE: 1/8"=1'-0"

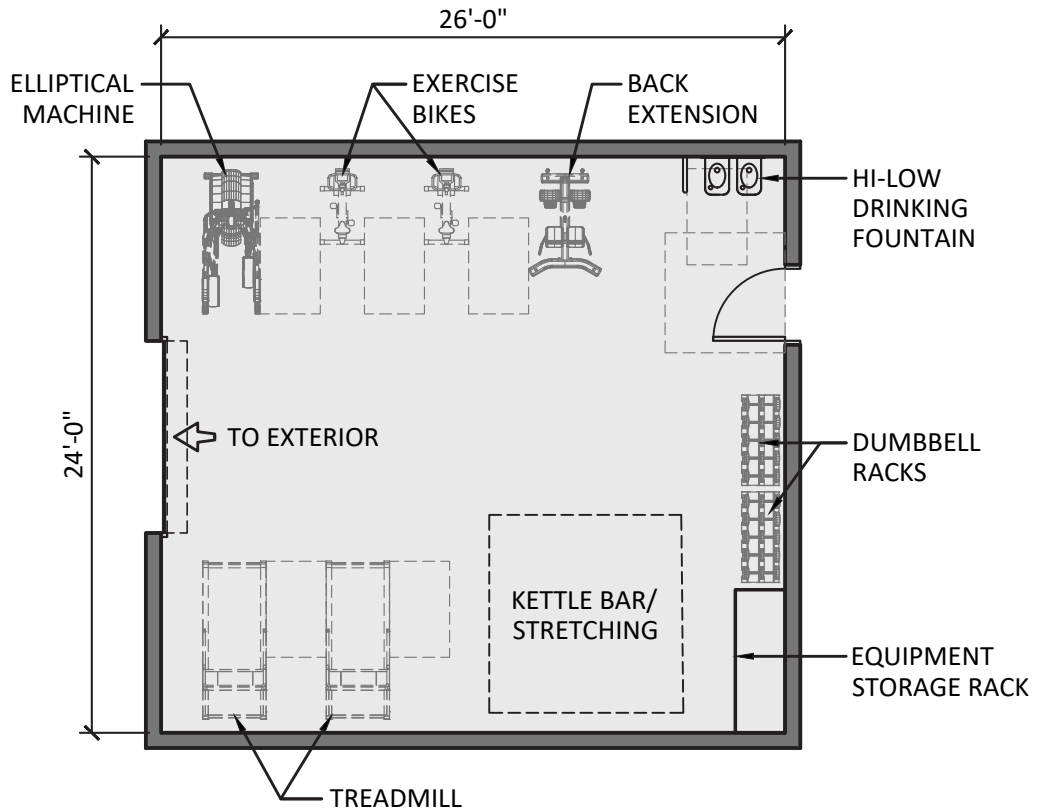


8. FIREFIGHTER RESTROOM (64 S.F.)

SCALE: 1/8"=1'-0"



FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT

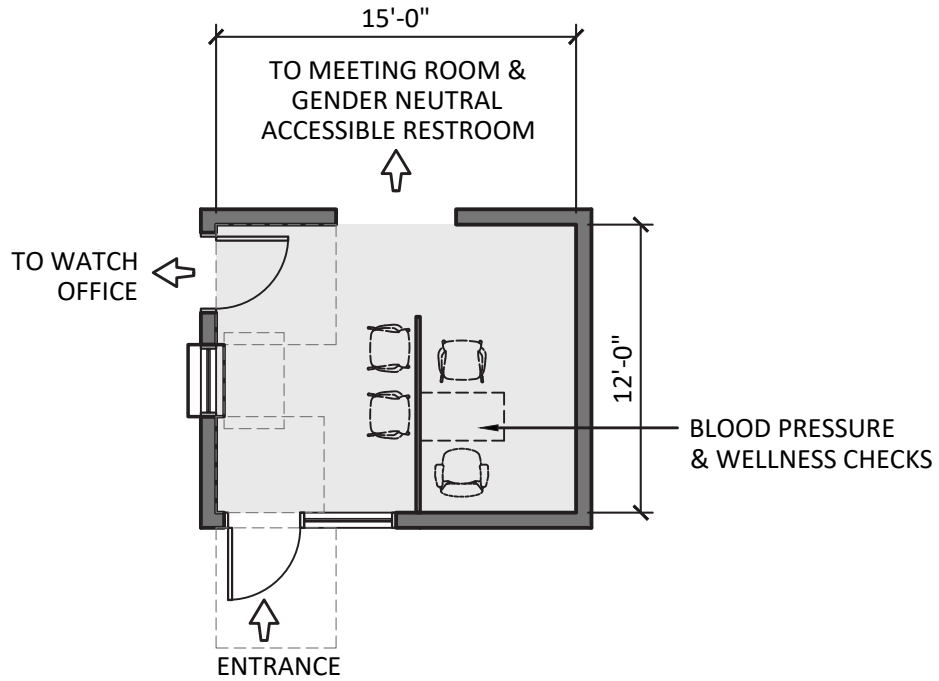


9. FITNESS ROOM (624 S.F.)

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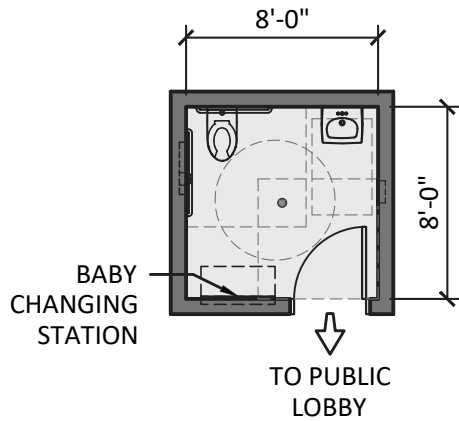


FIRE HOUSE - FIREFIGHTER OFFICES



10. FIRE HOUSE PUBLIC LOBBY (180 S.F.)

SCALE: 1/8"=1'-0"

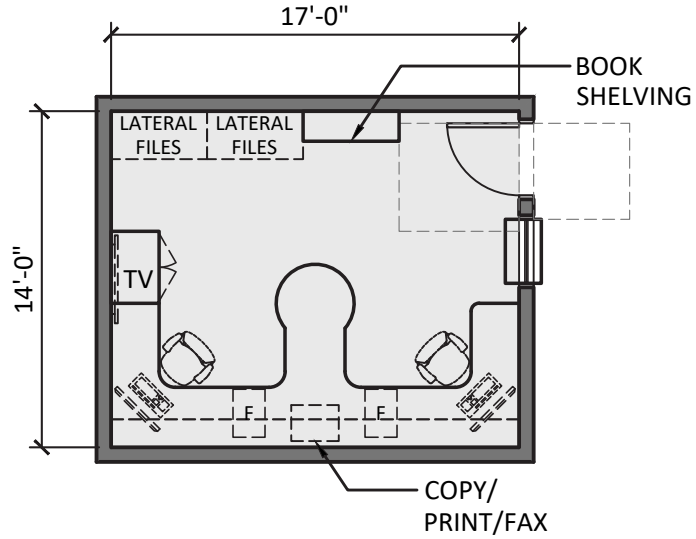


11. FIRE HOUSE PUBLIC RESTROOM (64 S.F.)

SCALE: 1/8"=1'-0"

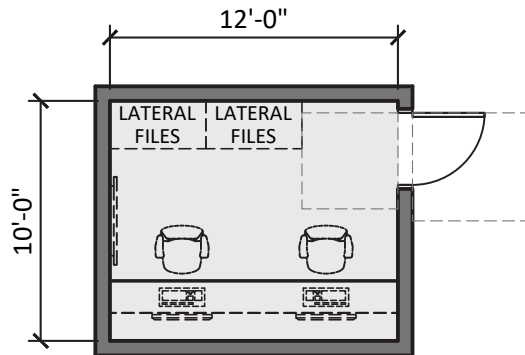


FIRE HOUSE - FIREFIGHTER OFFICES



12. WATCH OFFICE (238 S.F.)

SCALE: 1/8"=1'-0"

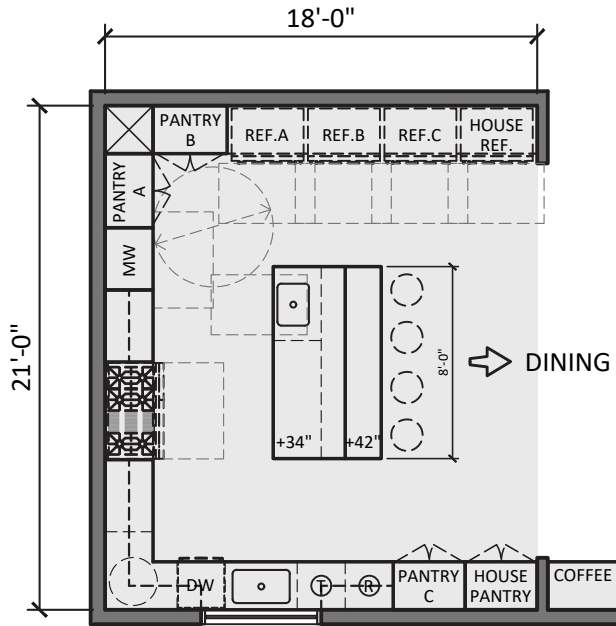


13. CAPTAIN'S OFFICE (120 S.F.)

SCALE: 1/8"=1'-0"

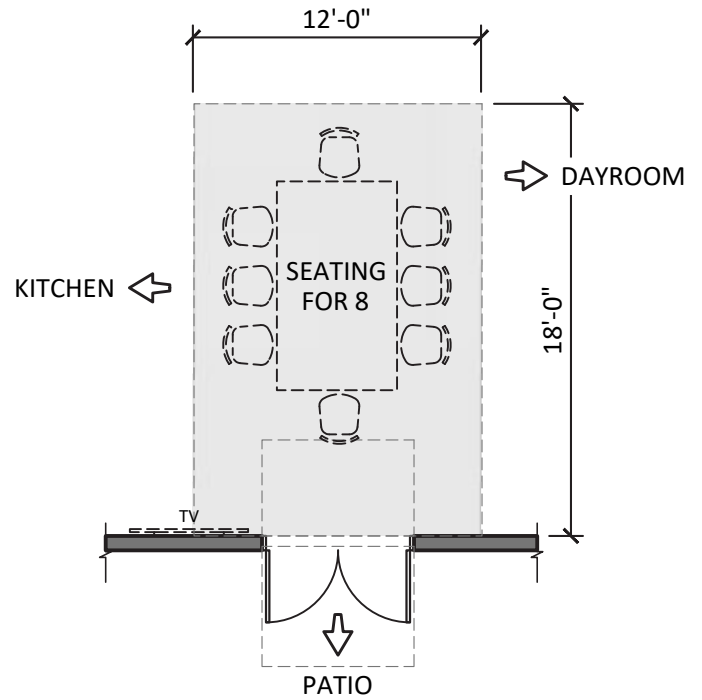


FIRE HOUSE - FIREFIGHTER QUARTERS



14. KITCHEN (378 S.F.)

SCALE: 1/8"=1'-0"

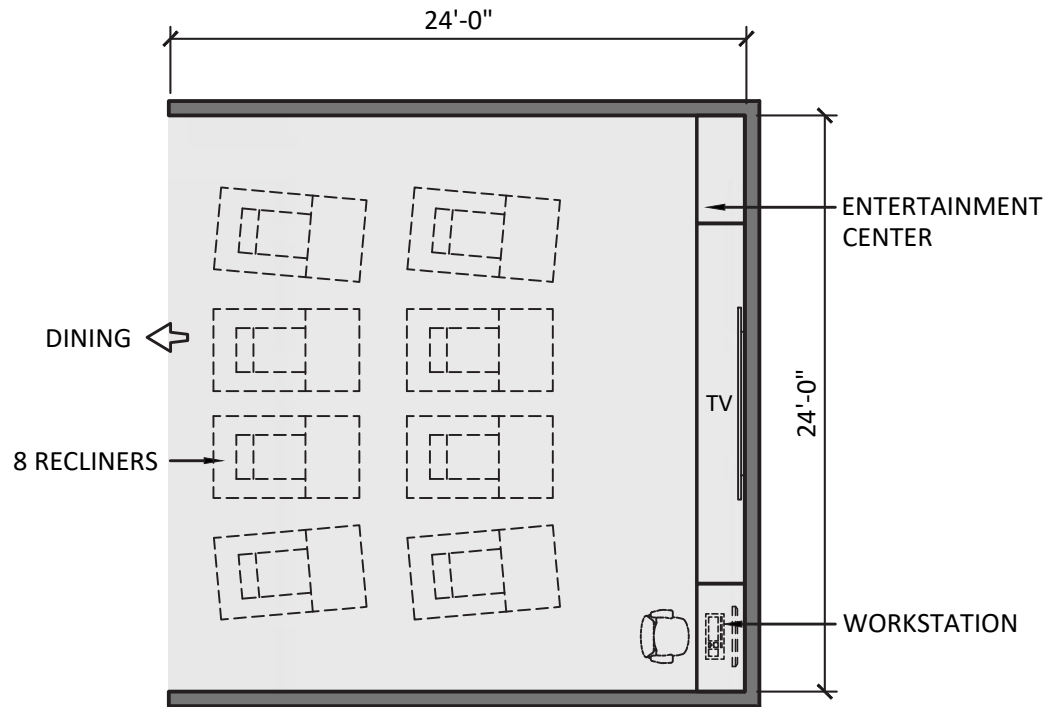


15. DINING AREA (216 S.F.)

SCALE: 1/8"=1'-0"

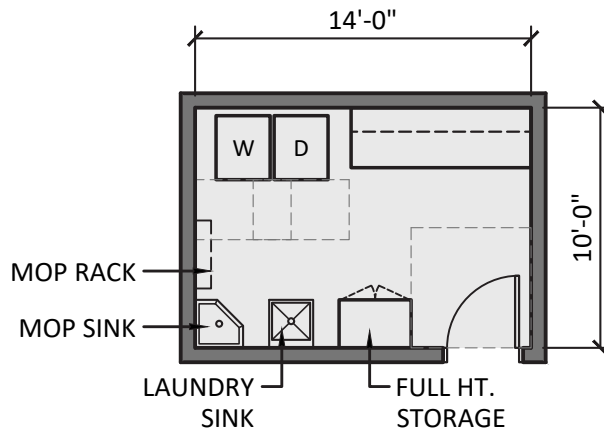


FIRE HOUSE - FIREFIGHTER QUARTERS



16. DAYROOM (576 S.F.)

SCALE: 1/8"=1'-0"

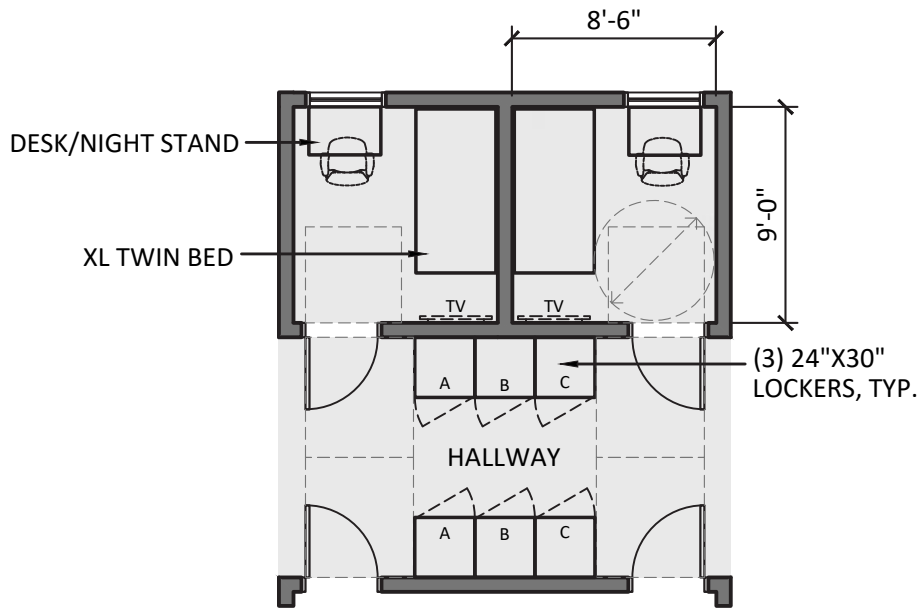


17. LAUNDRY ROOM (140 S.F.)

SCALE: 1/8"=1'-0"

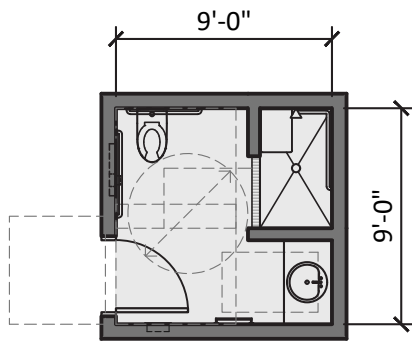


FIRE HOUSE - FIREFIGHTER QUARTERS



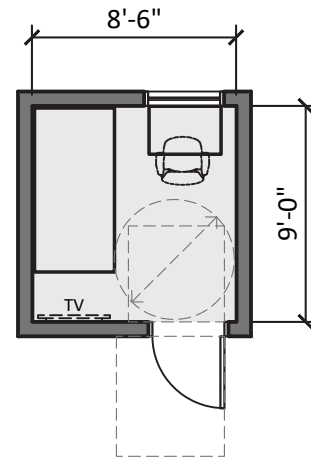
18. FIREFIGHTER BEDROOM - 5 (383 S.F.)

SCALE: 1/8"=1'-0"



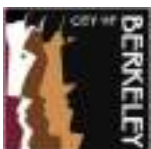
19. FIREFIGHTER BATHROOM - ADA (81 S.F.)

SCALE: 1/8"=1'-0"

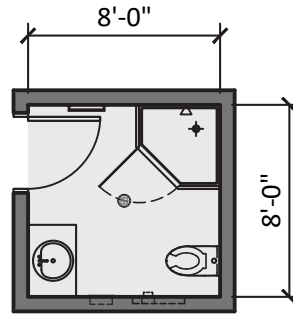


20. INTERN BEDROOM (77 S.F.)

SCALE: 1/8"=1'-0"

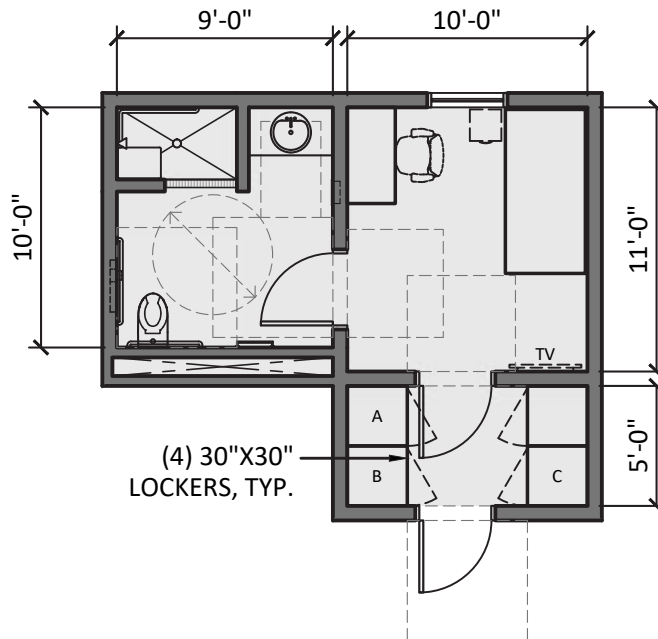


FIRE HOUSE - FIREFIGHTER QUARTERS



21. FIREFIGHTER BATHROOM - 3 (192 S.F.)

SCALE: 1/8"=1'-0"

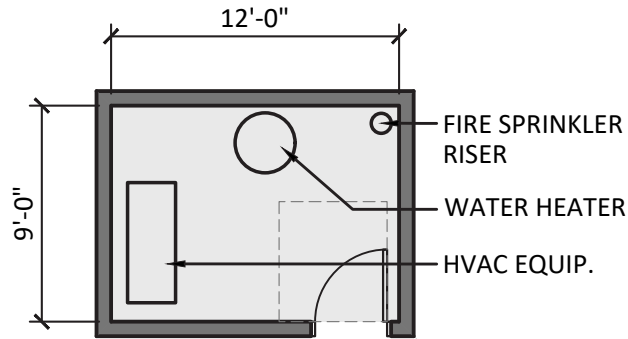


22. CAPTAIN BEDROOM & ACCESSIBLE BATHROOM (250 S.F.)

SCALE: 1/8"=1'-0"

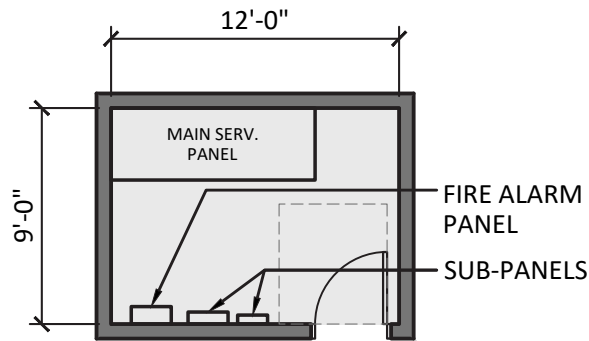


FIRE HOUSE - UTILITY SUPPORT/VERTICAL CIRCULATION



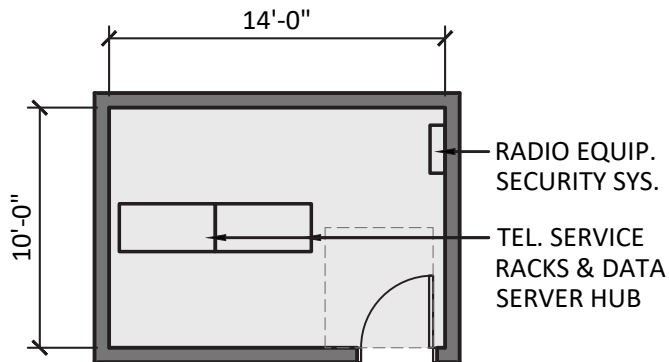
23. MECHANICAL ROOM (108 S.F.)

SCALE: 1/8"=1'-0"



24. ELECTRICAL ROOM (108 S.F.)

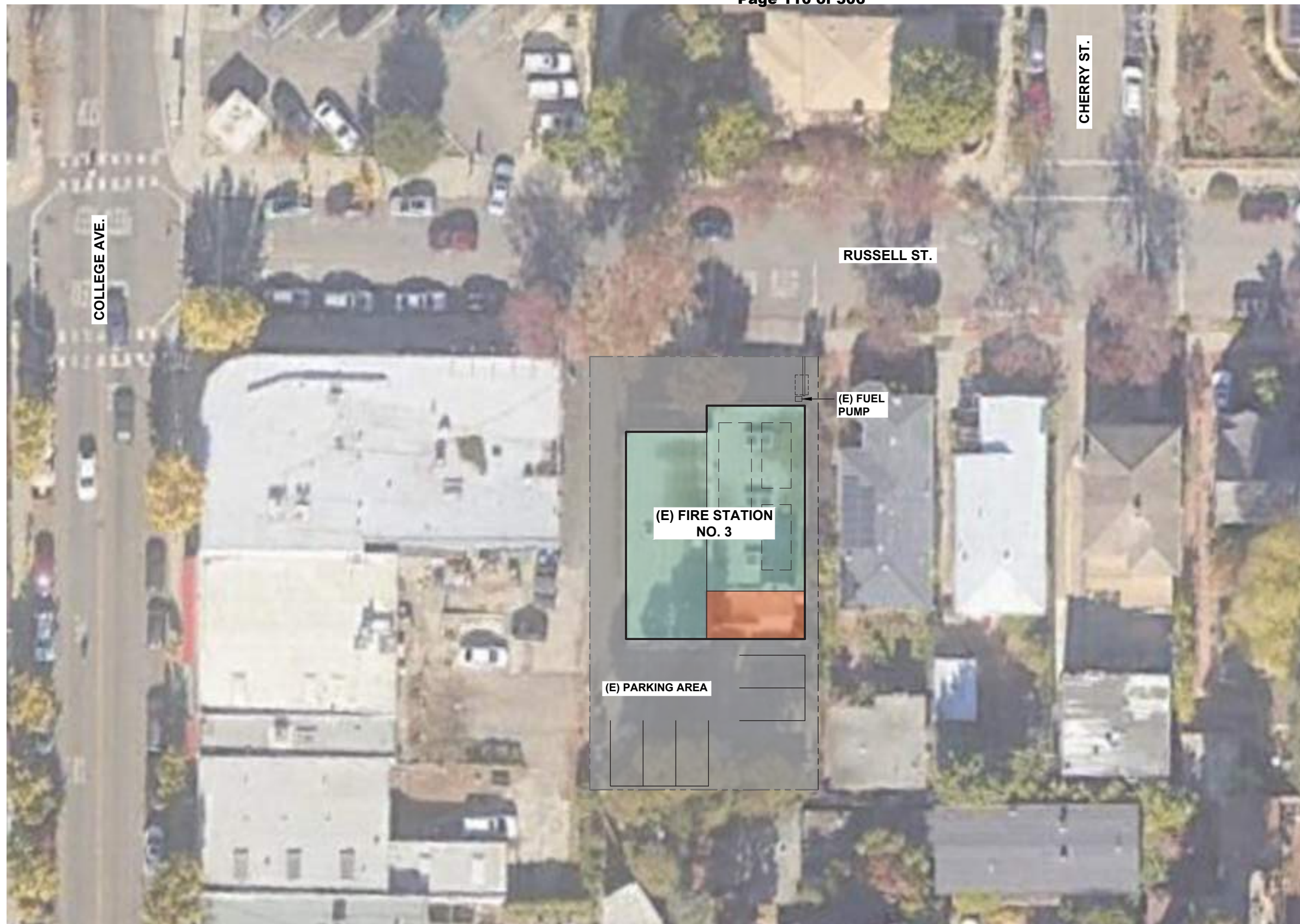
SCALE: 1/8"=1'-0"



25. COMMUNICATIONS ROOM (140 S.F.)

SCALE: 1/8"=1'-0"





FIRE STATION NO. 3
 2 STORY BUILDING
 EXISTING LOT AREA: 9,359 S.F.

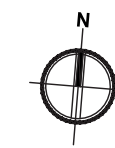
LEGEND:

 EXISTING BUILDING AREA
 ADDED BUILDING AREA
 RENOVATION AREA



SITE PLAN DIAGRAM


SCALE: 1/32" = 1'-0"




 **CITY OF BERKELEY**
 FIRE SERVICE MASTER PLAN
 SITE STUDIES

TITLE:
FIRE STATION NO. 3 - SITE DIAGRAM (BLDG. RENOVATION & ADDITIONAL AREA)
 2710 RUSSELL STREET, BERKELEY, CA 94705

03.17.2023

 **SIEGEL & STRAIN Architects**
 6201 DOYLE STREET, SUITE B,
 EMERYVILLE, CA 94608
 phone: 510.547.8092 | www.siegelstrain.com

 **MARY MCGRATH ARCHITECTS**
 610 16th STREET, SUITE 219, OAKLAND, CA 94612
 phone: 510.208.9400
 www.marymcgratharchitects.com

FIRE STATION NO. 3




2 STORY BUILDING

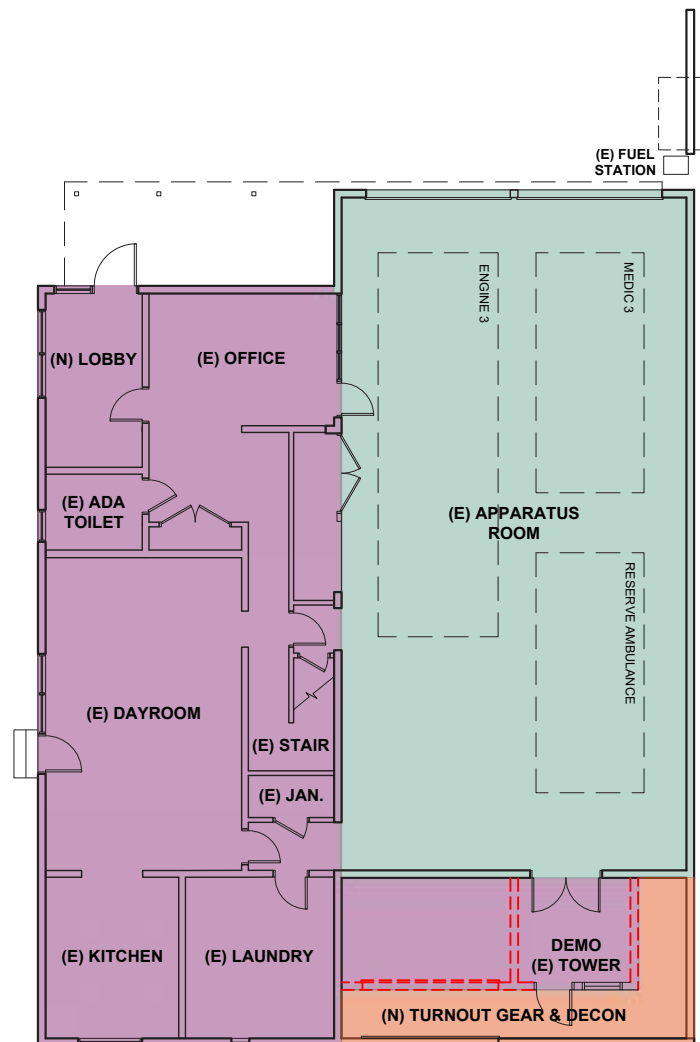
EXISTING BUILDING AREA: 5,582 S.F.

PROPOSED ADDED BUILDING AREA: 611 S.F.

TOTAL BUILDING AREA: 6,193 S.F.

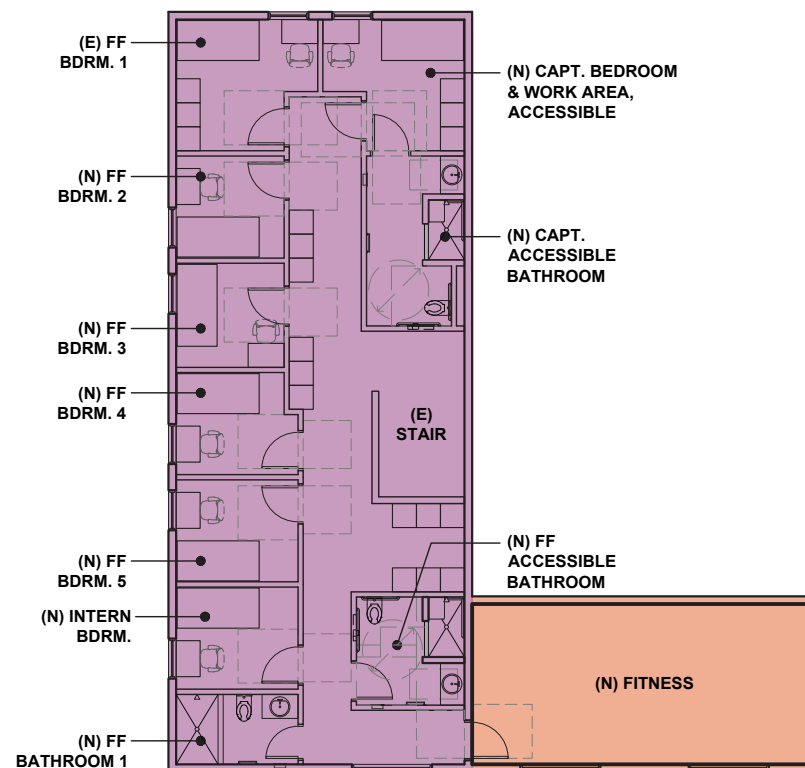
LEGEND:

-  EXISTING BUILDING AREA
-  ADDED BUILDING AREA
-  RENOVATION AREA



FIRST FLOOR PLAN

SCALE: 1/16" = 1'-0"



SECOND FLOOR PLAN

SCALE: 1/16" = 1'-0"





FIRE STATION 4



CITY OF BERKELEY
FIRE HOUSE NO. 4

1900 MARIN AVENUE, BERKELEY, CA 94707

DRAFT
MAY 08, 2023

PROJECT DESCRIPTION

The existing Fire House No. 4 is 5,341 SF and was originally designed to provide operational space and living quarters for two people in 1960. The facility was seismically retrofitted and expanded to the size noted above in 1998. The fire station currently houses 3 personnel per shift on Engine 4 (3). And, per the Standards of Coverage Study prepared by Citigate, the Firehouse 4 location is recommended to add a future ambulance and Medic Intern. The staffing will increase to 7 personnel per shift.

Two options were evaluated. They include:

1. Renovation and expansion of 1,600 SF for a total SF of 6,941. The expansion will add the turnout storage space and a fitness room. The site does not have enough space to expand the apparatus bay for the added ambulance nor to expand the living quarters for additional staffing. Parking and privacy goals can not be met through the expansion.
2. Replace station on the existing expanded site. This option requires the expansion of the site and adds subterranean parking. A replacement 12,802 SF station plus a 6,000SF basement for parking would allow the addition of the future ambulance in this ambulance. (Recommended)

The ROM Project Budget for the Recommended Option 2 is \$36-41M; not including escalation beyond 2024.



Fire House No. 4
Engine 4, Future Medic 4
1900 Marin Avenue

CONCEPTUAL SPACE NEEDS OUTLINE

Fire House Company Make-up - Staffing Per shift	Current	Future
Engine 4 - Captain, Engineer, Firefighter/Paramedic	3	4
Future Ambulance	0	2
Medic Intern	1	1
Reserve Engine	0	0
TOTAL CURRENT AND FUTURE STAFFING:	4	7

No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
SITE OPERATIONS				
	Firefighter Parking	14 firefighter parking spaces, secure and separate from public parking	1,600	10'x20' ea.
	Visitor Parking	One regular and one ADA adjacent to entrance, shared with other public parking areas.	600	10' x 20
	Apparatus Washing Area	Adjacent to hydrant for refill and testing; locate at rear of App. Bays; provide clarifier for run-off	0	rear apron
	Hose Maintenance Area	Use rear apron area for cleaning hose; roll wet and store on apparatus	0	rear apron
	Yard Hydrant	Located at rear yard	0	rear apron
	Generator Area	Located at rear yard	150	10'x15'
	Fueling Area	Above Grade Convault System - 500 GA	240	12' x 20'
	Trash Enclosure	Exterior access for service; space for dumpster and recycling bins, Covered	150	10'x15'
	Flagpole	Flagpole area with lighting	25	5'x5'
	Outdoor Patio or Deck	Outdoor uses; adjacent to Kitchen	200	10'x20'

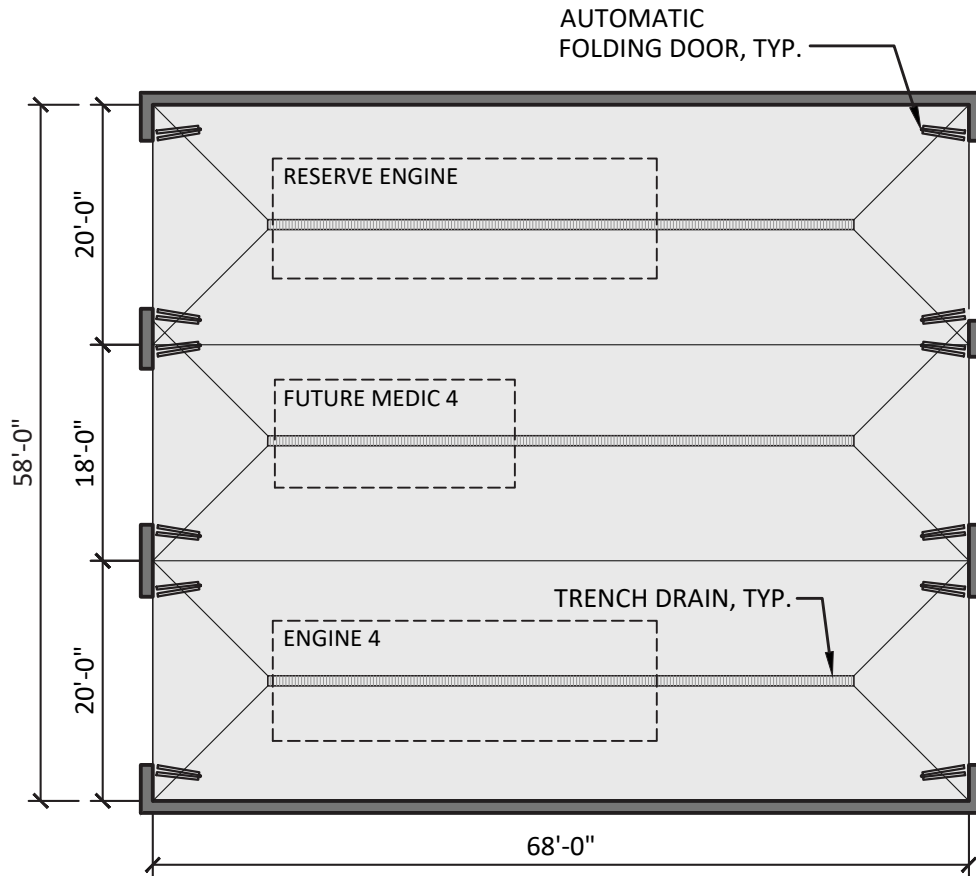
No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
FIRE HOUSE - APP BAY/APP BAY SUPPORT				
1	Apparatus Bay (One Engine, Future Ambulance and one engine reserve)	Engine, Reserve Engine and Future Ambulance. Systems include tailpipe exhaust, power and air cord drops to each vehicle; electric heating system; night lighting; bi-folding auto-close doors; trench drains	3,944	(2) 20' x 68' (1) 18' x 68'
2	Medical Supply Closet	Heavy Duty Shelving; medical supplies off of apparatus bay.	24	3' x 8'
3	Clean Up	Clean-up sink, shelving, Alcove in bay.	18	3' x 6'
4	Equipment Storage	Yard equipment, bike storage (LEED Requirement), compressor	64	8' x 8'
5	Turnout Gear Room	Two lockers for each assigned personnel (7 Personnel per day x 3 = 21x 2= 42 lockers); four unassigned for 46 total lockers. Power at each locker, continuous exhaust fan, floor drain, heavy duty shelving; wildland gear bags. Dirty area in room with Extractor and Dryer, decon shower and hanging area. Part of response return path.	876	20' x 27' 14' x 24'
6	Janitor Room	Service sink, mop rack; janitorial supplies;	48	6' x 8'
7	Work Shop Alcove	Work bench/shop area for vise, peg board, tool storage with large flat work surface, Misc. equipment storage , tool chest, Full height storage cabinet, shop sink and eyewash.	120	4' x 30'
8	Firefighter Restroom	Fire fighter toilet and sink, off of apparatus bay	64	8' x 8'
9	Fitness Room	Dedicated Fitness Room	624	26' x 24'
Fire House - App Bay/Support Subtotal			5,782	
No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
FIRE HOUSE - FIREFIGHTER OFFICES				
10	Fire House Public Lobby	Lobby with seating; adjacent to the public restroom. Service window separation between Watch Office and lobby. Alcove in Lobby for Blood Pressure and other wellness checks.	180	12' x 15'
11	Fire House Public Restroom	One All Gender Restroom, accessible, off of Lobby	64	8'x8'
12	Watch Office	Workstations for up to 4-persons; provide space for lateral file cabinets (one cabinet per company) copy machine and office supply storage, book shelving; conference function	238	14' x 17'
13	Captains Office	Workstation for 1-person; provide space for lateral file cabinets.	120	10' x 12'
Fire House - Firefighter Offices Subtotal			602	

No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
FIRE HOUSE - FIREFIGHTER QUARTERS				
14	Kitchen	3-refrigerators; 3-shift pantries; 1-house pantry and refrigerator; 1-dishwasher; electric induction range/oven with hood; large microwave; large, 12" deep sink with disposer; prep sink at island; trash and recycling areas; coffer service area; open to Dining Area	378	18' x 21'
15	Dining Area	Seating for 8 persons; wall-mounted TV; open to kitchen; open to Day Room	216	12' x 18'
16	Day Room	Seating for 8 with recliner chairs; entertainment center and book shelving; Open to Dining, one work station along wall.	576	24' x 24'
17	Laundry Room	Service sink; countertop; janitorial supplies; mop rack, Washer/Dryer	140	10' x 14'
18	Firefighter Bedroom	6-separate bedrooms each containing desk, chair, wall-mounted TV, 1 bed with lockers outside door.	459	8.5' x 9' (6)
19	Firefighter Bathroom ADA	1 accessible restroom with shower, sink, toilet	81	9' x 9'
20	Firefighter Bathrooms	3 restrooms with shower, sink, toilet	192	8' x 8' (3)
21	Captain Bedroom, Bathroom and Work Area, Accessible	1 bedroom containing desk, chair, wall-mounted TV, 1 bed, with accessible in-suite bathroom.	250	10' x 16' 10' x 9' (1)
Fire House - Firefighter Quarters Subtotal			2,292	

No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
UTILITY SUPPORT/VERTICAL CIRCULATION				
22	Mechanical Room	HVAC equipment; hot water heater; fire sprinkler riser	108	9' x 12'
23	Electrical Room	Main service panel, fire alarm panel; sub panels	108	9' X 12'
24	Communications Room	Telephone service racks, alert response system hub, data server hub, radio equipment; security system	140	10' x 14'
25	Stairs	(2x) for each level. Two stairways from the second floor for exiting	576	18' x 8'
26	Fire House Elevator	Elevator and machine room	240	8' x 10' (3)
Utility Support/ Vertical Circulation Subtotal			1,172	

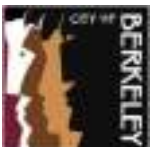
Engine 4, Future Medic 4: Summary		Program	
	Fire House - App Bay/Bay Support Subtotal	5,782	
	Fire House - Firefighter Offices Subtotal	602	
	Fire House - Firefighter Quarters Subtotal	2,292	
	Utility Support/Vertical Circulation Subtotal	1,172	
	BUILDING SUBTOTAL (SF)	9,848	
	Circulation at 30%	2,954	
	Engine 4, Future Medic 4: GRAND TOTAL (SF)	12,802	

FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



1. APPARATUS BAY - 3 DRIVE-THROUGH BAYS (3,944 S.F.)

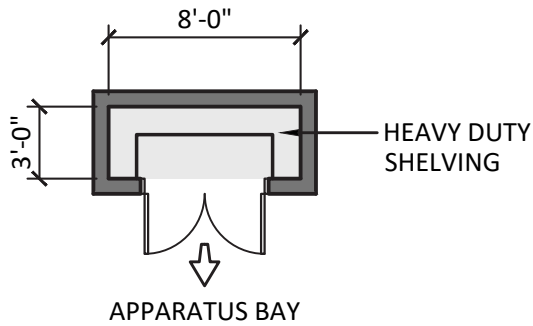
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CITY OF BERKELEY
FIRE HOUSE NO. 4
ENGINE 4, FUTURE MEDIC 4

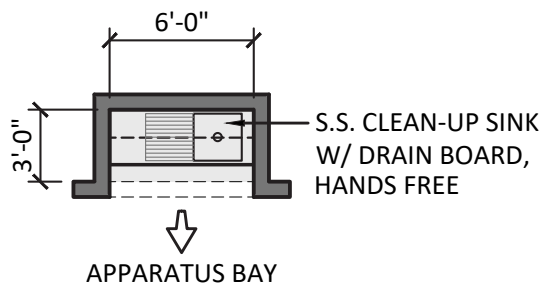


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



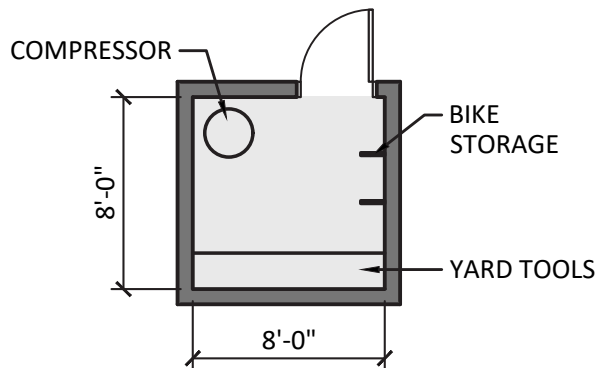
2. MEDICAL SUPPLY CLOSET (24 S.F.)

SCALE: 1/8"=1'-0"



3. CLEAN-UP (18 S.F.)

SCALE: 1/8"=1'-0"

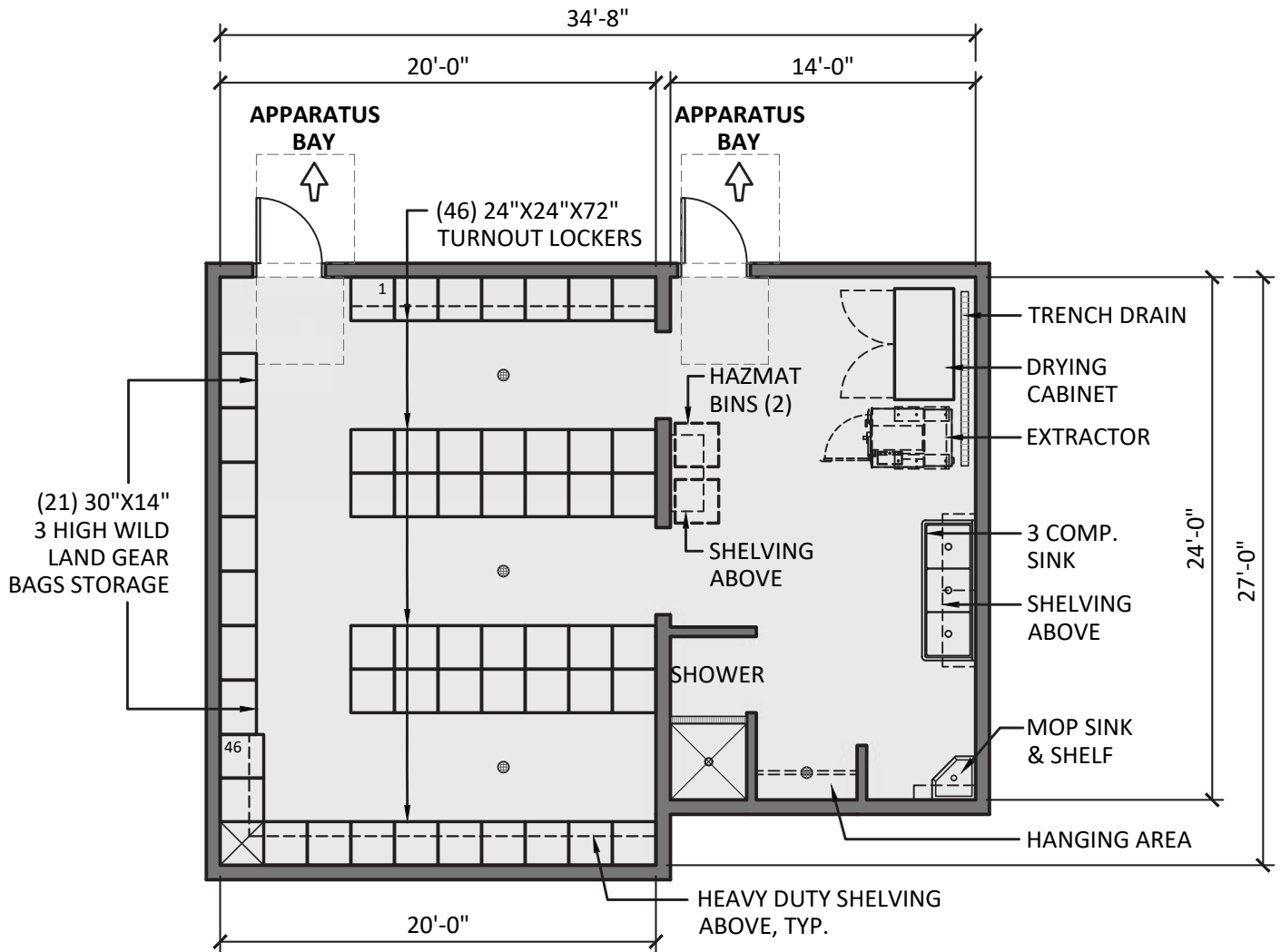


4. EQUIPMENT STORAGE (64 S.F.)

SCALE: 1/8"=1'-0"

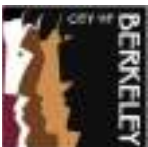


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT

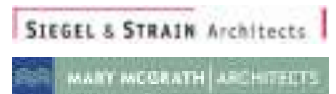


5. TURNOUT GEAR ROOM (876 S.F.)

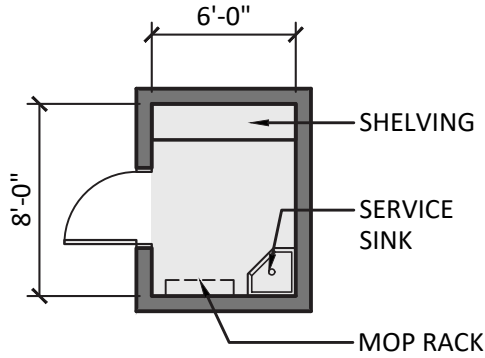
SCALE: 1/8"=1'-0"



CITY OF BERKELEY
FIRE HOUSE NO. 4
ENGINE 4, FUTURE MEDIC 4

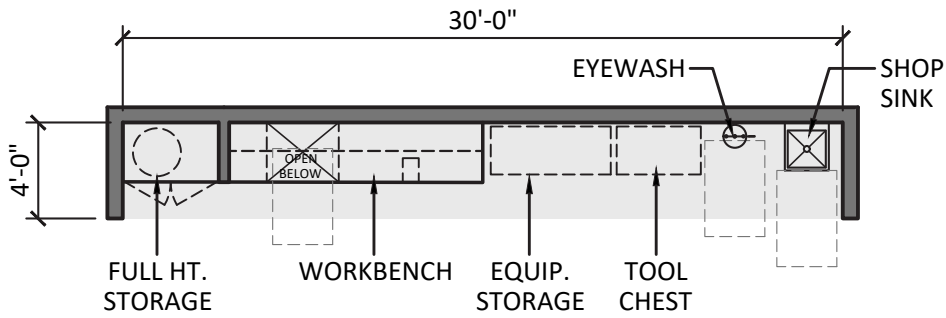


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



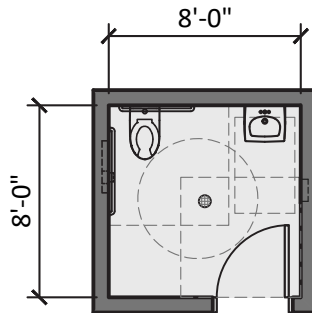
6. JANITOR ROOM (48 S.F.)

SCALE: 1/8"=1'-0"



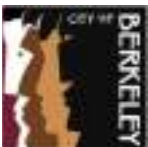
7. WORKSHOP ALCOVE (120 S.F.)

SCALE: 1/8"=1'-0"

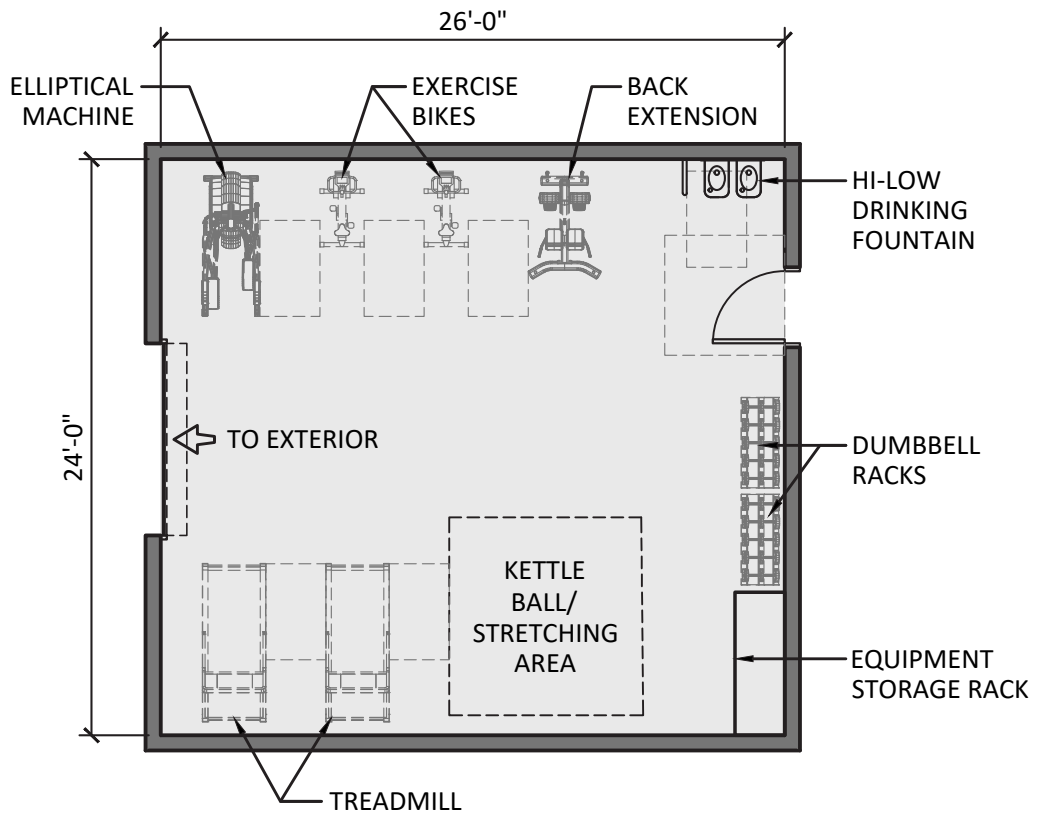


8. FIREFIGHTER RESTROOM (64 S.F.)

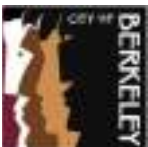
SCALE: 1/8"=1'-0"



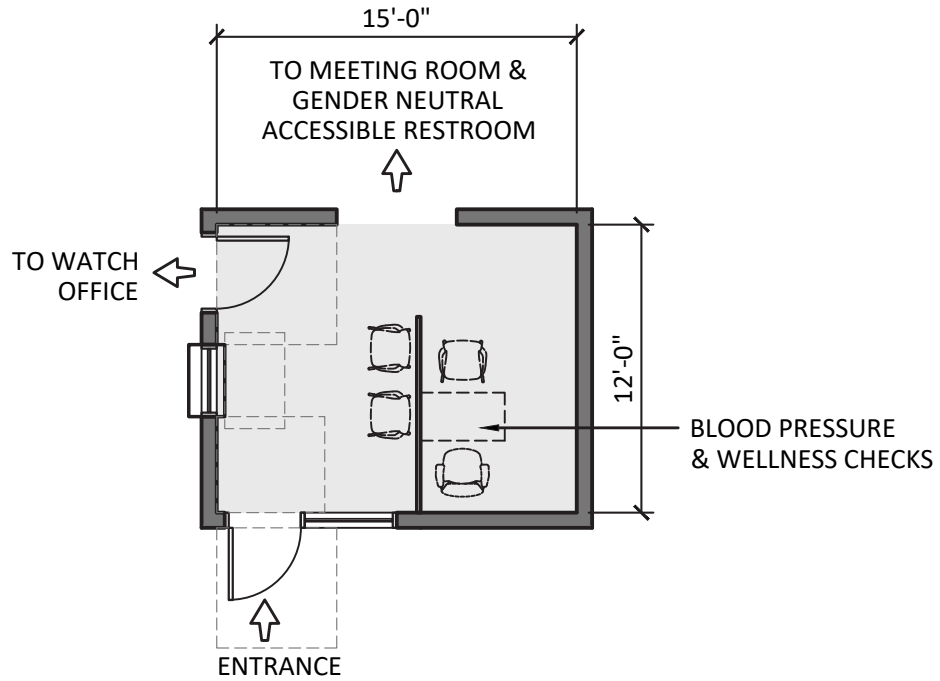
FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



9. FITNESS ROOM (624 S.F.)
SCALE: 1/8"=1'-0"

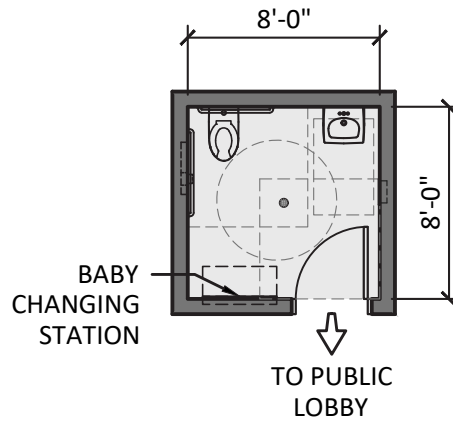


FIRE HOUSE - FIREFIGHTER OFFICES



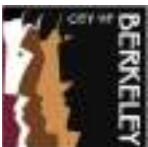
10. FIRE HOUSE PUBLIC LOBBY (180 S.F.)

SCALE: 1/8"=1'-0"

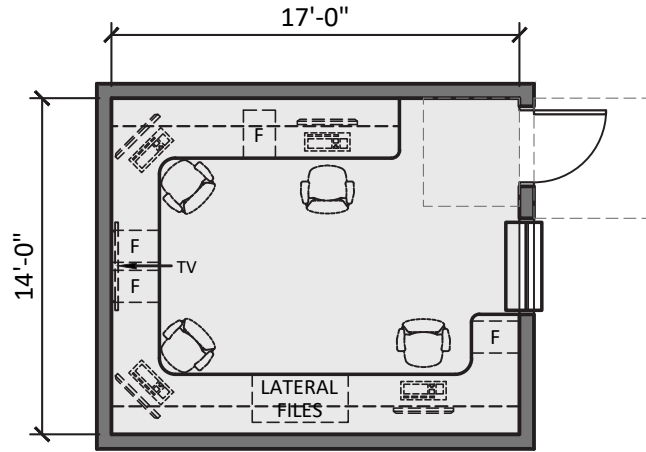


11. FIRE HOUSE PUBLIC RESTROOM (64 S.F.)

SCALE: 1/8"=1'-0"

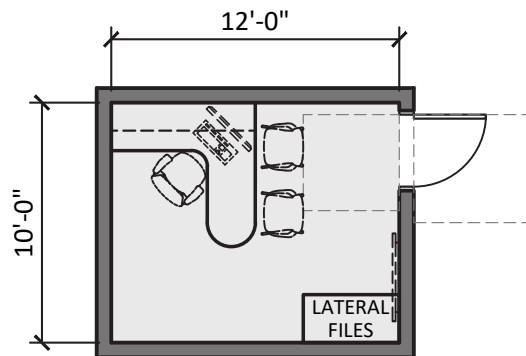


FIRE HOUSE - FIREFIGHTER OFFICES



12. WATCH OFFICE (238 S.F.)

SCALE: 1/8"=1'-0"

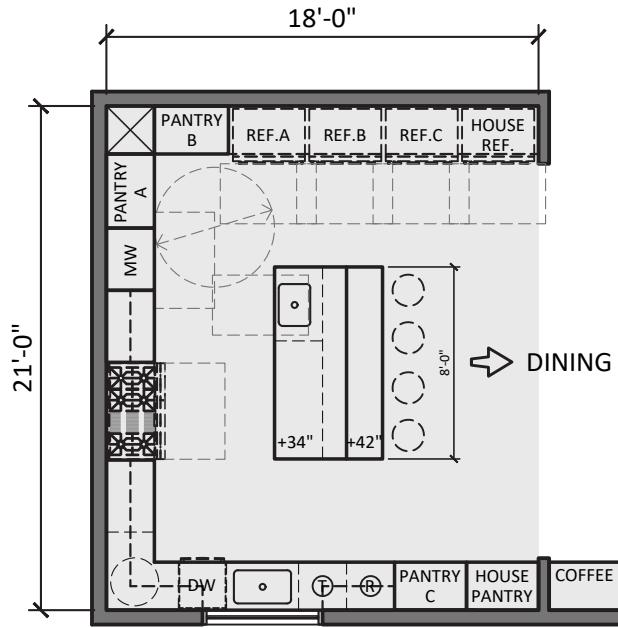


13. CAPTAIN'S OFFICE (120 S.F.)

SCALE: 1/8"=1'-0"

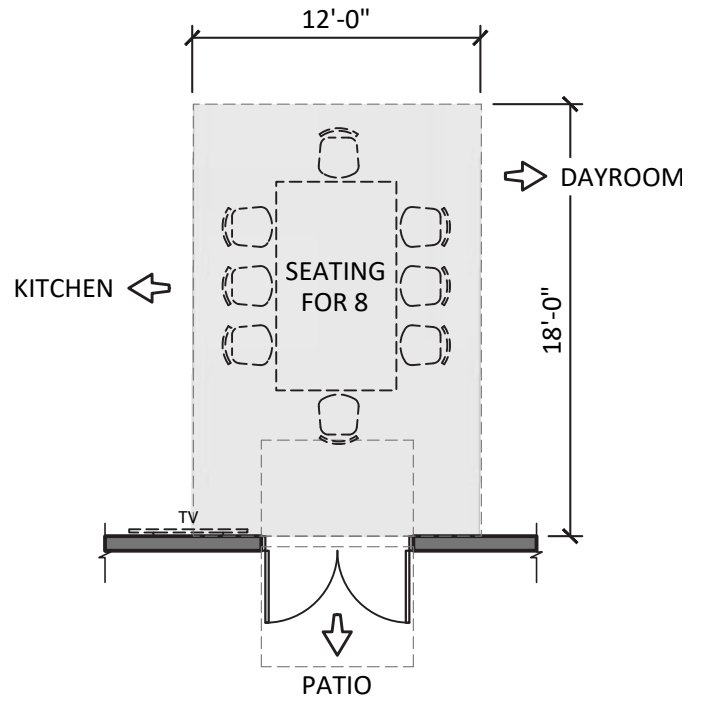


FIRE HOUSE - FIREFIGHTER QUARTERS



14. KITCHEN (378 S.F.)

SCALE: 1/8"=1'-0"



15. DINING AREA (216 S.F.)

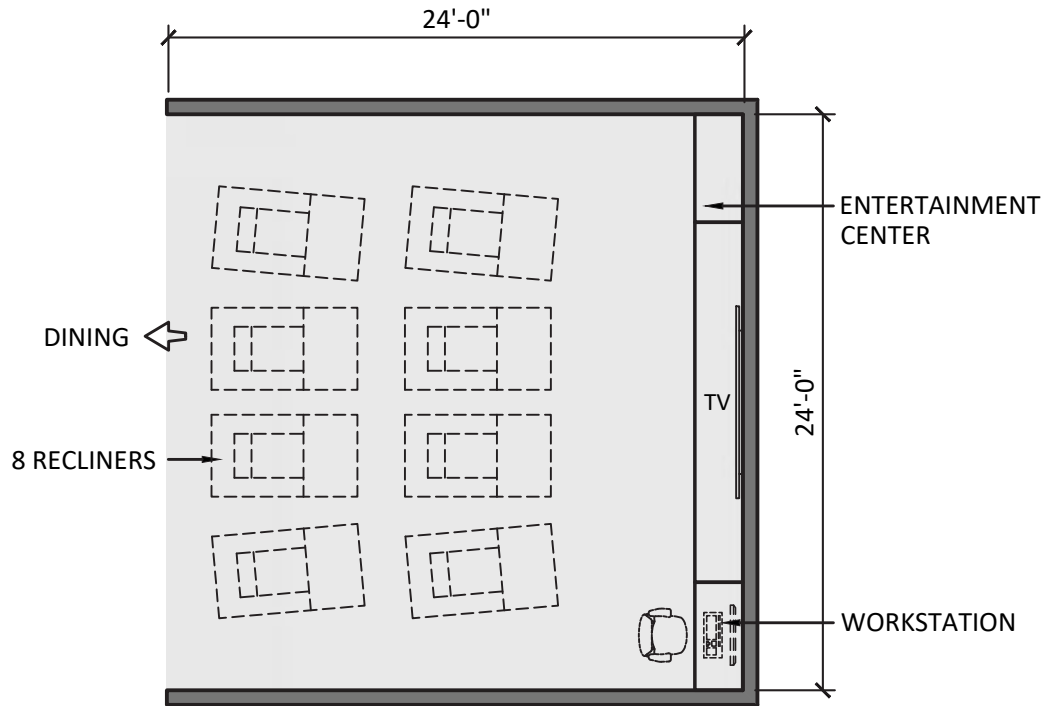
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CITY OF BERKELEY
FIRE HOUSE NO. 4
 ENGINE 4, FUTURE MEDIC 4

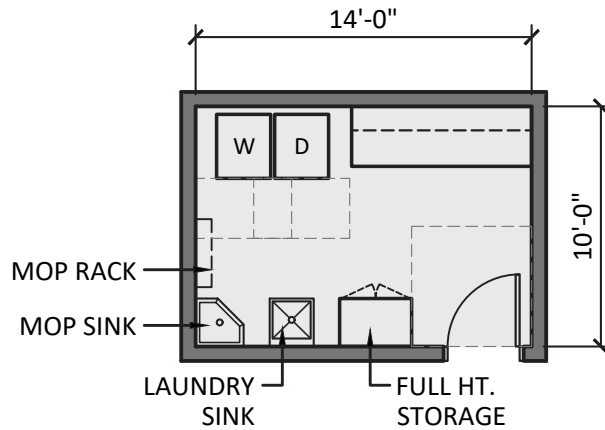


FIRE HOUSE - FIREFIGHTER QUARTERS



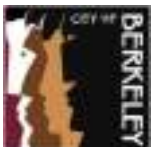
16. DAYROOM (576 S.F.)

SCALE: 1/8"=1'-0"



17. LAUNDRY ROOM (140 S.F.)

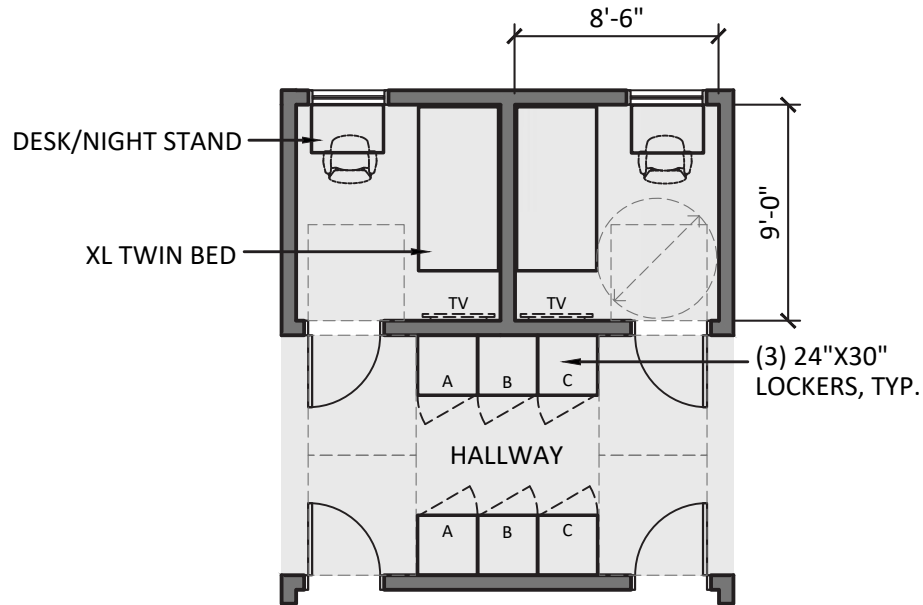
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CITY OF BERKELEY
FIRE HOUSE NO. 4
 ENGINE 4, FUTURE MEDIC 4

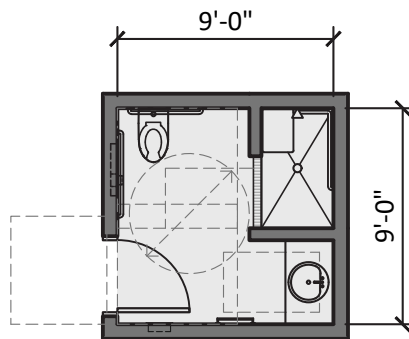


FIRE HOUSE - FIREFIGHTER QUARTERS



18. FIREFIGHTER BEDROOM - 6 (459 S.F.)

SCALE: 1/8"=1'-0"

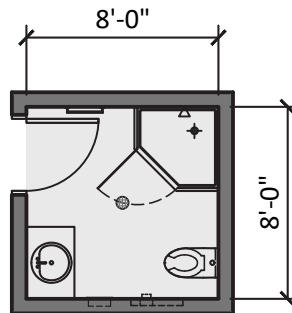


19. FIREFIGHTER BATHROOM - ADA (81 S.F.)

SCALE: 1/8"=1'-0"

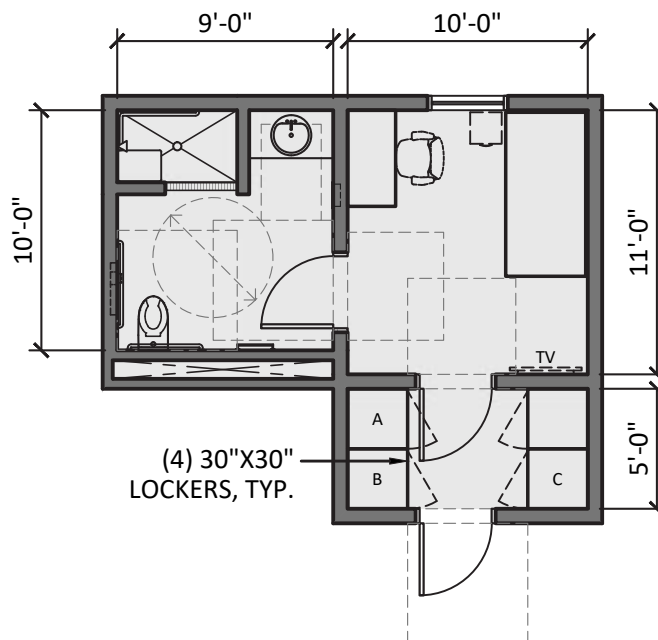


FIRE HOUSE - FIREFIGHTER QUARTERS



20. FIREFIGHTER BATHROOM - (3) 192 S.F.

SCALE: 1/8"=1'-0"



21. CAPTAIN BEDROOM, BATHROOM AND WORK AREA, ACCESSIBLE (250 S.F.)

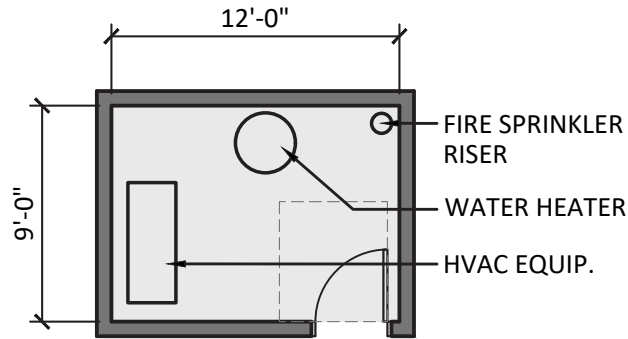
SCALE: 1/8"=1'-0"



CITY OF BERKELEY
FIRE HOUSE NO. 4
 ENGINE 4, FUTURE MEDIC 4

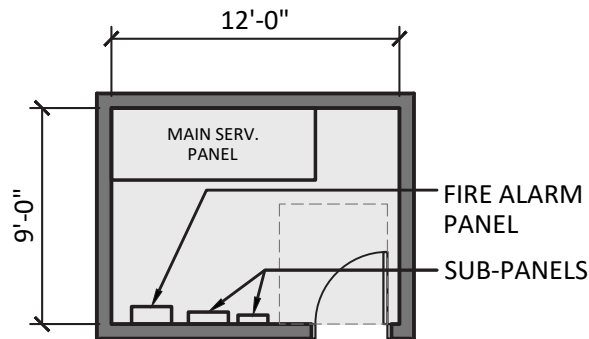


FIRE HOUSE - UTILITY SUPPORT/VERTICAL CIRCULATION



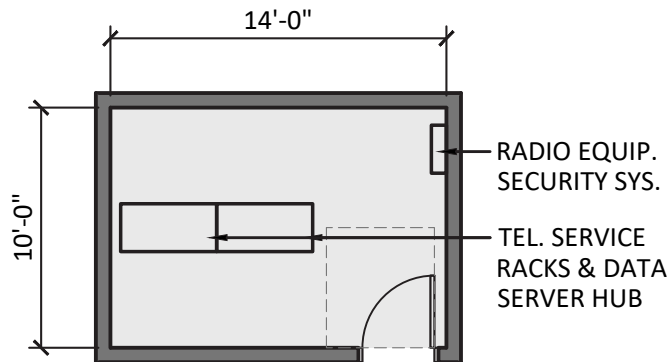
24. MECHANICAL ROOM (108 S.F.)

SCALE: 1/8"=1'-0"



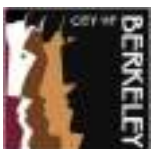
25. ELECTRICAL ROOM (108 S.F.)

SCALE: 1/8"=1'-0"



26. COMMUNICATIONS ROOM (140 S.F.)

SCALE: 1/8"=1'-0"





SITE PLAN DIAGRAM

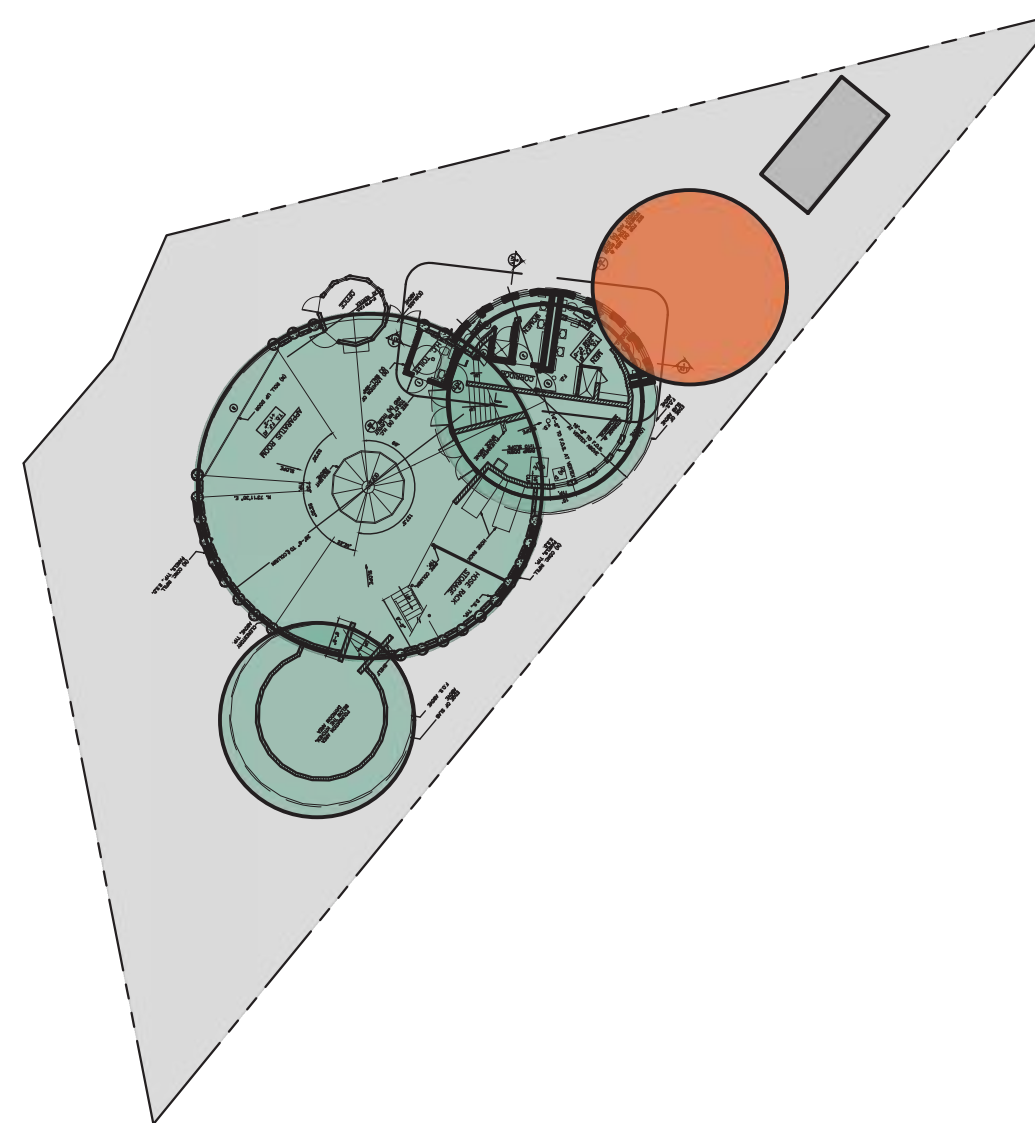
SCALE: 1/64" = 1'-0"

FIRE STATION NO. 4
2 STORY BUILDING

EXISTING LOT AREA: 12,623 S.F.
EXISTING BUILDING AREA: 5,341 S.F.
PROPOSED NEW BUILDING AREA: 1,600 S.F.

LEGEND:

-  EXISTING BUILDING AREA
-  PROPOSED NEW BUILDING AREA



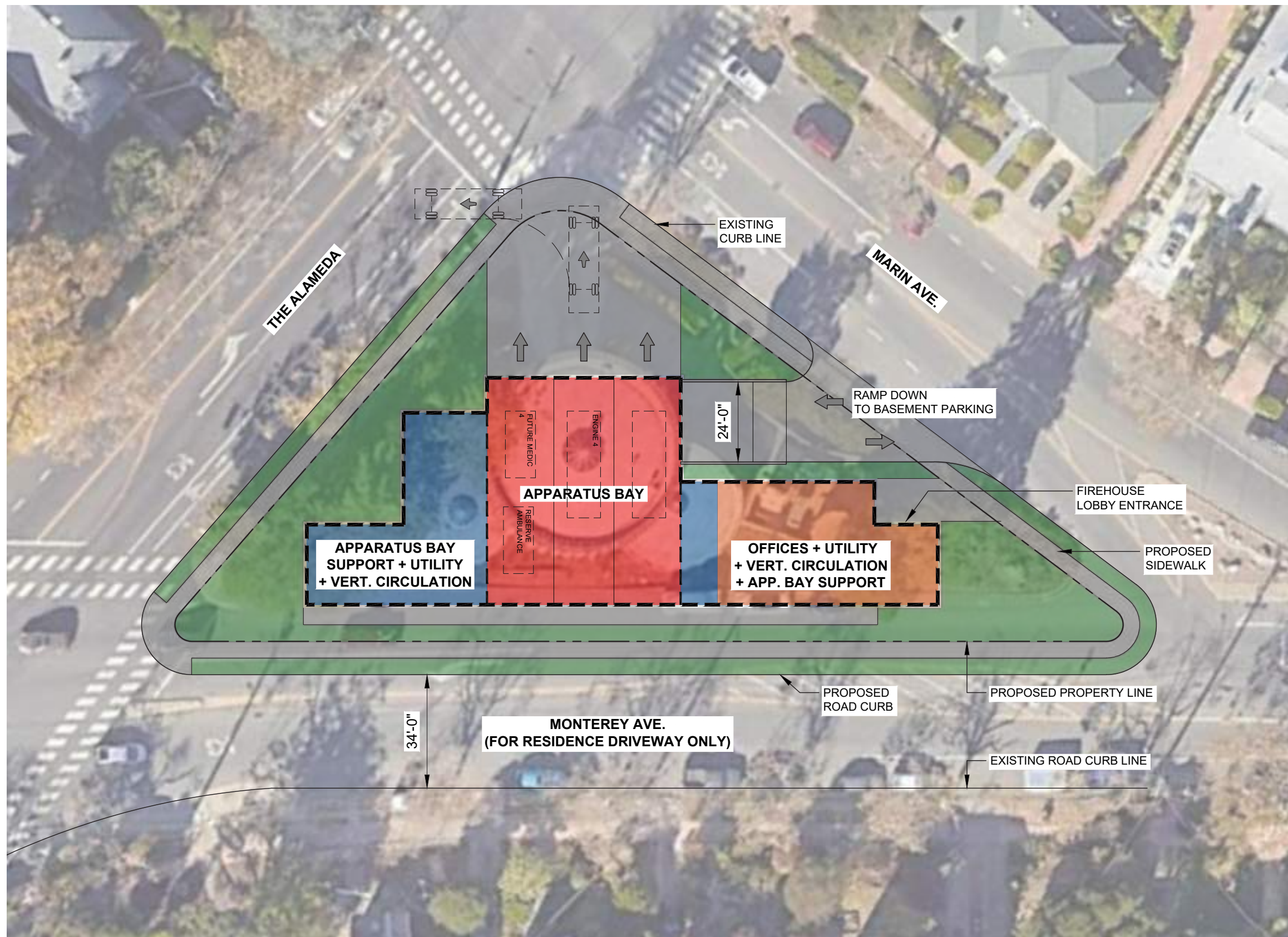
CITY OF BERKELEY
FIRE SERVICE MASTER PLAN
SITE STUDIES

TITLE:

FIRE STATION NO. 4 - (OPTION 1 - BLDG. RENOVATION & ADDITIONAL AREA)
1900 MARIN AVENUE, BERKELEY, CA 94707

SIEGEL & STRAIN Architects
6201 DOYLE STREET, SUITE B,
EMERYVILLE, CA 94608
phone: 510.547.8092 | www.siegelstrain.com

MARY MCGRATH ARCHITECTS
610 16th STREET, SUITE 219, OAKLAND, CA 94612
phone: 510.208.9400
www.marymcgratharchitects.com



**FIRE STATION NO. 4
PROPOSED 2 STORY BUILDING**

PROPOSED LOT AREA: ±20,296 S.F.
 PROPOSED 1ST FLOOR: 8,667 S.F.
 PROPOSED 2ND FLOOR: 4,135 S.F.
 TOTAL BLDG. AREA: 12,802 S.F.



SITE & FIRST FLOOR DIAGRAM

SCALE: 1/32" = 1'-0"



CITY OF BERKELEY
 FIRE SERVICE MASTER PLAN
 SITE STUDIES

TITLE:

FIRE STATION NO. 4 - (OPTION 2 - NEW BUILDING, EXPANDED SITE AND ADD BASEMENT PARKING)

1900 MARIN AVENUE, BERKELEY, CA 94707

03.17.2023

SIEGEL & STRAIN Architects
 6201 DOYLE STREET, SUITE B,
 EMERYVILLE, CA 94608
 phone: 510.547.8092 | www.siegelstrain.com

MARY MCGRATH ARCHITECTS
 610 16th STREET, SUITE 219, OAKLAND, CA 94612
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 www.marymcratharchitects.com



FIRE STATION 5



CITY OF BERKELEY

FIRE HOUSE NO. 5

2680 SHATTUCK AVENUE, BERKELEY, CA 94704

DRAFT

MAY 08, 2023

PROJECT DESCRIPTION

Fire House No. 5 was expanded to 9,369 SF when it was seismically upgraded in 2012. In this expansion the living quarters were modified to provide space for 9 on-duty personnel per shift. The fire station currently houses 9 personnel per shift and Truck 5 (3), Engine 5 (3), Medic 5 (2), and Medic Intern (1). The staffing is planned to increase to 11 personnel per shift. The firehouse also houses a Type VI wildland unit, a reserve engine and a utility truck. Several of the units can not be housed in the apparatus bays.

Three options were evaluated. They include:

1. Renovation and expansion of the existing station on the second level to provide 16,983 SF of space. Parking requirements are not met with this solution.
2. Replace station on existing site without additional parking. Parking requirements are not met.
3. Replace station on existing site with 2 story, 16,983 SF station plus basement parking. Parking requirements are met with this solution.

The recommended option for this location is Option 3. All program criteria are met.

The ROM Project Budget for the Recommended Option 3 is \$53-58M not including escalation beyond 2024.



Fire House No. 5**Truck 5, Engine 5, Medic 5,****2680 Shattuck Avenue****CONCEPTUAL SPACE NEEDS OUTLINE**

Fire House Company Make-up - Staffing Per shift	Current	Future
Truck 5 - Captain , Engineer, Firefighter/Paramedic	3	4
Engine 5 - Captain, Engineer, Firefighter/Paramedic	3	4
Medic 5 - Medic, EMT	2	2
Medic Intern	1	1
Type III 4X4 - Cross Staffed	0	0
Engine - Reserve	0	0
Utility Pick-up (F-250)	0	0
TOTAL CURRENT AND PLANNED STAFFING:	9	11

No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
SITE OPERATIONS				
	Firefighter Parking	22 firefighter parking spaces, secure and separate from public parking	4,400	10'x20' ea.
	Visitor Parking	One regular and one ADA adjacent to entrance, shared with other public parking areas.	200	10' x 20
	Apparatus Washing Area	Adjacent to hydrant for refill and testing; locate at rear of App. Bays; provide clarifier for run-off	0	rear apron
	Hose Maintenance Area	Use rear apron area for cleaning hose; roll wet and store on apparatus	0	rear apron
	Yard Hydrant	Located at rear yard	0	rear apron
	Generator Area	Located at rear yard	150	10'x15'
	Fueling Area	Above Grade Convault System - 1,500 GA	240	12' x 20'
	Trash Enclosure	Exterior access for service; space for dumpster and recycling bins, Covered	150	10'x15'
	Flagpole	Flagpole area with lighting	25	5'x5'
	Outdoor Patio or Deck	Outdoor uses; adjacent to Kitchen	200	10'x20'

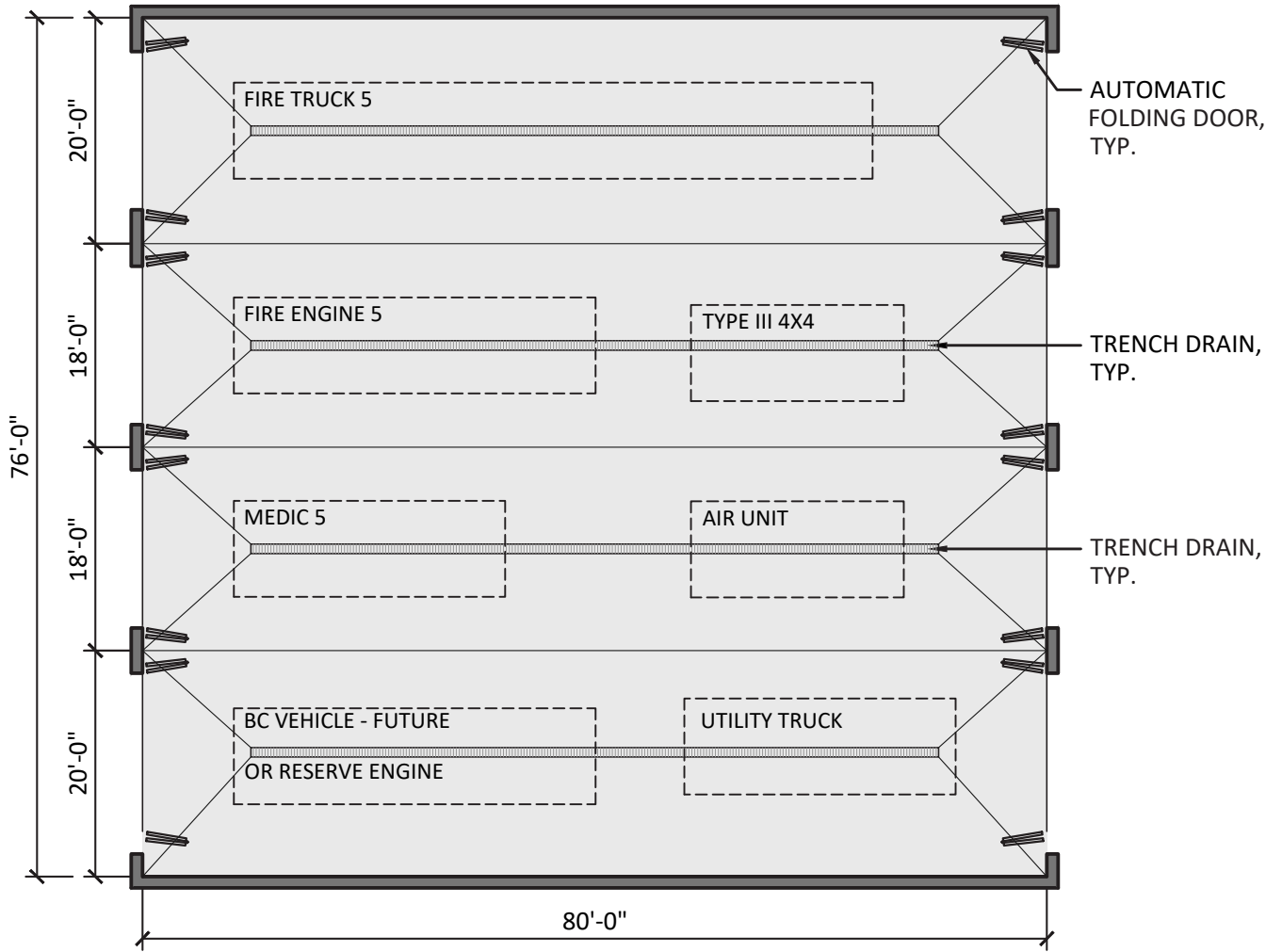
No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
FIRE HOUSE - APP BAY/APP BAY SUPPORT				
1	Apparatus Bay (One Truck drive through bay, three double bays)	Truck, Engine, Medic - Front line apparatus. Type III 4x4, Reserve Engine, Air Unit, Utility Truck - Second Line Storage. Systems include tailpipe exhaust, power and air cord drops to each vehicle; electric heating system; night lighting; bi-folding auto-close doors; trench drains	6,080	(2) 20' x 80' (2) 18' x 80'
2	Medical Supply Closet	Heavy Duty Shelving; medical supplies off of apparatus bay.	24	3' x 8'
3	Clean Up	Clean-up sink, shelving, Alcove in bay.	18	3' x 6'
4	Equipment Storage	Yard equipment, bike storage (LEED Requirement), compressor	96	8' x 12'
5	Turnout Gear Room	Two lockers for each assigned personnel (11 Personnel per day x 3 = 33), 66 lockers); 4 unassigned for 70 total lockers. Power at each locker, continuous exhaust fan, floor drain, heavy duty shelving; wildland gear bags. Dirty area in room with Extractor and Dryer, decon shower and hanging area. Part of response return path.	1,200	24' x 50'
6	Janitor Room	Service sink, mop rack; janitorial supplies;	48	6' x 8'
7	Work Shop Alcove	Work bench/shop area for vise, peg board, tool storage with large flat work surface, Misc. equipment storage, tool chest, Full height storage cabinet, shop sink and eyewash.	120	4' x 30'
8	Firefighter Restroom	Fire fighter toilet and sink, off of apparatus bay	64	8' x 8'
9	Fitness Room	Dedicated Fitness Room	624	26' x 24'
Fire House - App Bay/Support Subtotal			8,274	
No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
FIRE HOUSE - FIREFIGHTER OFFICES				
10	Fire House Public Lobby	Lobby with seating; adjacent to the public restroom. Service window separation between Watch Office and lobby. Alcove in Lobby for Blood Pressure and other wellness checks.	180	12' x 15'
11	Fire House Public Restroom	One All Gender Restroom, accessible, off of Lobby	64	8'x8'
12	Watch Office	Workstations for 4-persons; provide space for lateral file cabinets (one cabinet per company) copy machine and office supply storage, book shelving; conference function	238	14' x 17'
13	Captains Office (Truck Captain and Engine Captain)	Workstation for 2-persons; provide space for (6) lateral file cabinets.	120	12' x 10'
Fire House - Firefighter Offices Subtotal			602	

No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
FIRE HOUSE - FIREFIGHTER QUARTERS				
14	Kitchen	3-refrigerators; 3-shift pantries; 1-house pantry and refrigerator; 2-dishwasher; electric induction range/oven with hood; large microwave; large, 12" deep sink with disposer; prep sink at island; trash and recycling areas; coffer service area; open to Dining Area	378	18' x 21'
15	Dining Area	Seating for 12 persons; wall-mounted TV; open to kitchen; open to Day Room	252	12' x 21'
16	Day Room	Seating for 12 with recliner chairs; entertainment center and book shelving; Open to Dining, one work station along wall.	720	24' x 30'
17	Laundry Room	Service sink; countertop; janitorial supplies; mop rack, Washer/Dryer	140	10' x 14'
18	Firefighter Bedroom	9-separate bedrooms each containing desk, chair, wall-mounted TV, 1 bed with lockers outside door.	689	8'-6" x 9' (9)
19	Firefighter Bathroom ADA	1 accessible restroom with shower, sink, toilet	81	9' x 9'
20	Firefighter Bathrooms	4 restrooms with shower, sink, toilet	256	8' x 8' (4)
21	Captain Bedroom, Bathroom and Work Area, Accessible	2-separate bedrooms each containing desk, chair, wall-mounted TV, 1 bed. One with accessible in-suite bathroom.	500	10' x 11' (2) 5' x 10' (2) 10' x 9' (2)
Fire House - Firefighter Quarters Subtotal			3,016	

No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
UTILITY SUPPORT/VERTICAL CIRCULATION				
22	Mechanical Room	HVAC equipment; hot water heater; fire sprinkler riser	108	9' x 12'
23	Electrical Room	Main service panel, fire alarm panel; sub panels	108	9' X 12'
24	Communications Room	Telephone service racks, alert response system hub, data server hub, radio equipment; security system	140	10' x 14'
25	Stairs	(2x) for each level. Two stairways from the second floor for exiting	576	18' x 8'
26	Fire House Elevator	Elevator and machine room	240	8' x 10' (3)
Utility Support/ Vertical Circulation Subtotal			1,172	

Engine 5, Truck 5, Medic 5: Summary		Program	
Fire House - App Bay/Bay Support Subtotal		8,274	
Fire House - Firefighter Offices Subtotal		602	
Fire House - Firefighter Quarters Subtotal		3,016	
Utility Support/Vertical Circulation Subtotal		1,172	
BUILDING SUBTOTAL (SF)		13,064	
Circulation at 30%		3,919	
Engine 5, Truck 5, Medic 5: GRAND TOTAL (SF)		16,983	

FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



1. APPARATUS BAY - 4 DRIVE-THROUGH BAYS (6,080 S.F.)

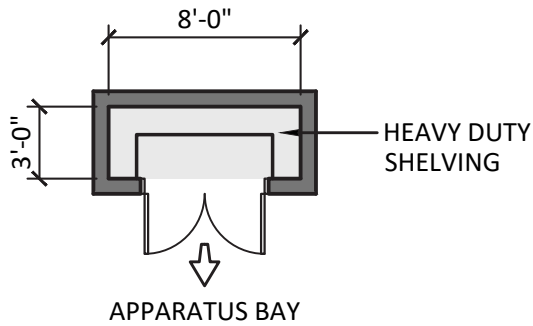
SCALE: 1/16"=1'-0"



CITY OF BERKELEY
FIRE HOUSE NO. 5
TRUCK 5, ENGINE 5, MEDIC 5

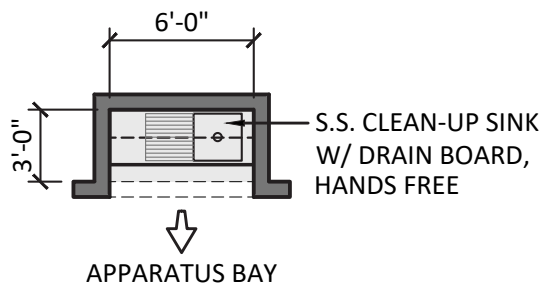


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



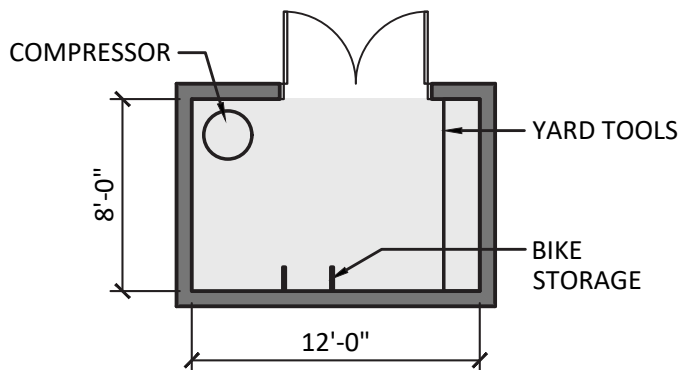
2. MEDICAL SUPPLY CLOSET (24 S.F.)

SCALE: 1/8"=1'-0"



3. CLEAN-UP (18 S.F.)

SCALE: 1/8"=1'-0"

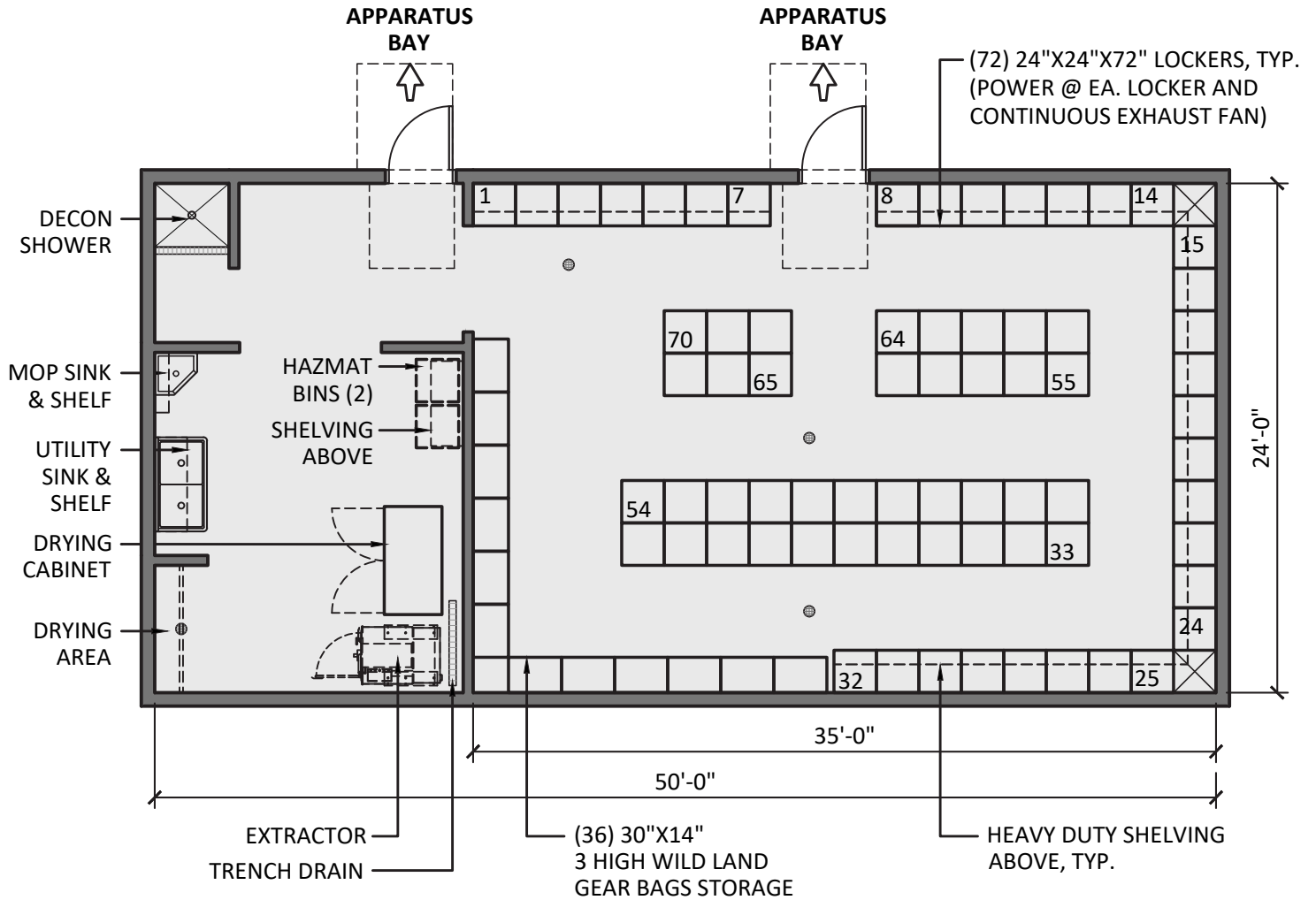


4. EQUIPMENT STORAGE (96 S.F.)

SCALE: 1/8"=1'-0"



FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT

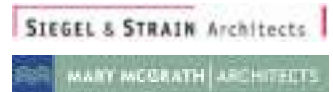


5. TURNOUT GEAR ROOM (1,200 S.F.)

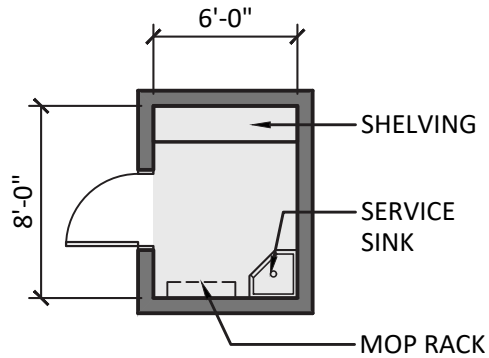
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CITY OF BERKELEY
FIRE HOUSE NO. 5
TRUCK 5, ENGINE 5, MEDIC 5

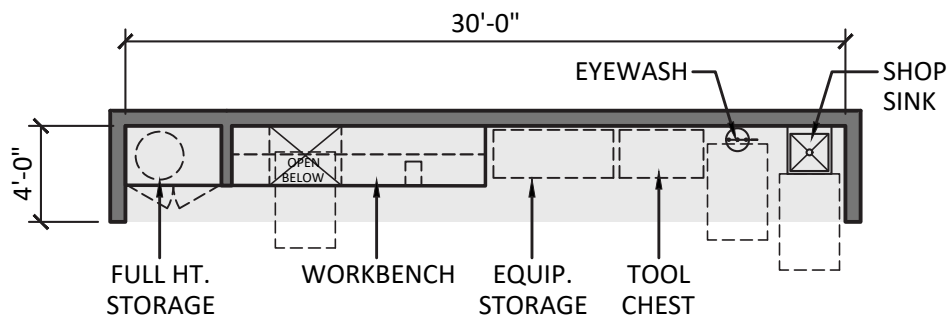


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



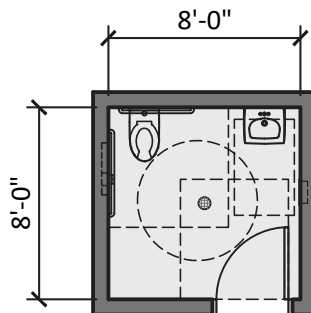
6. JANITOR ROOM (48 S.F.)

SCALE: 1/8"=1'-0"



7. WORKSHOP ALCOVE (120 S.F.)

SCALE: 1/8"=1'-0"

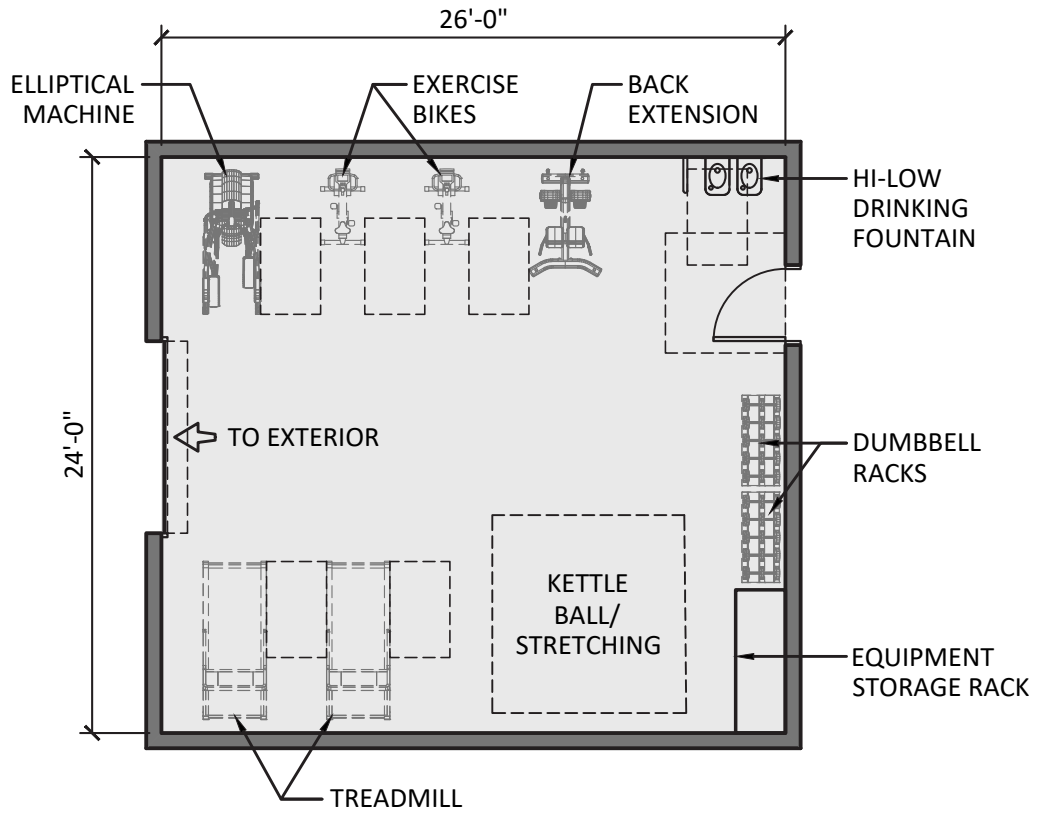


8. FIREFIGHTER RESTROOM (64 S.F.)

SCALE: 1/8"=1'-0"

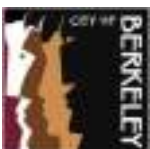


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



9. FITNESS ROOM (624 S.F.)

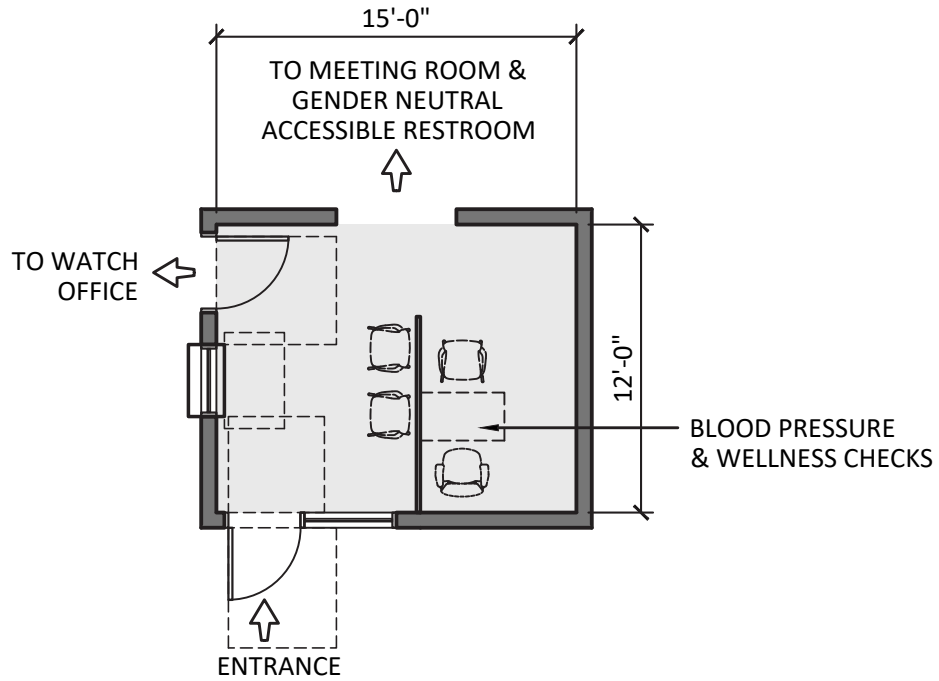
SCALE: 1/8"=1'-0"



CITY OF BERKELEY
FIRE HOUSE NO. 5
TRUCK 5, ENGINE 5, MEDIC 5

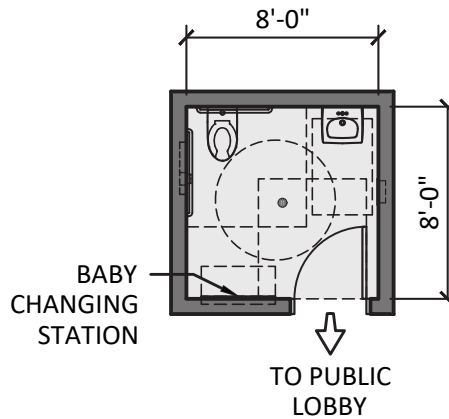


FIRE HOUSE - FIREFIGHTER OFFICES



10. FIRE HOUSE PUBLIC LOBBY (180 S.F.)

SCALE: 1/8"=1'-0"

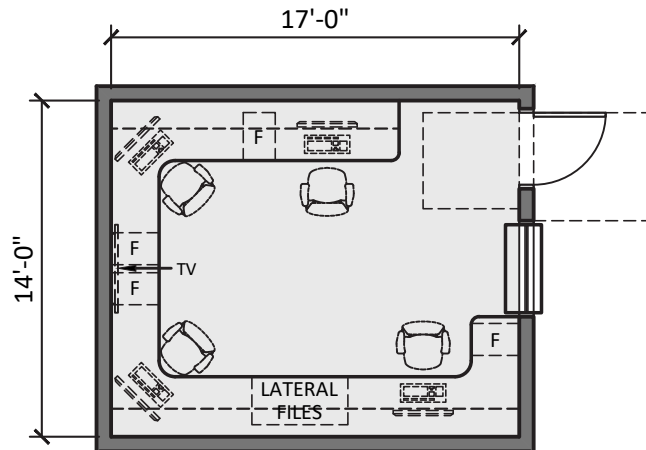


11. FIRE HOUSE PUBLIC RESTROOM (64 S.F.)

SCALE: 1/8"=1'-0"

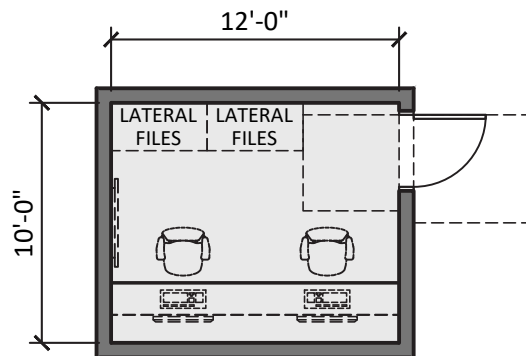


FIRE HOUSE - FIREFIGHTER OFFICES



12. WATCH OFFICE (238 S.F.)

SCALE: 1/8"=1'-0"

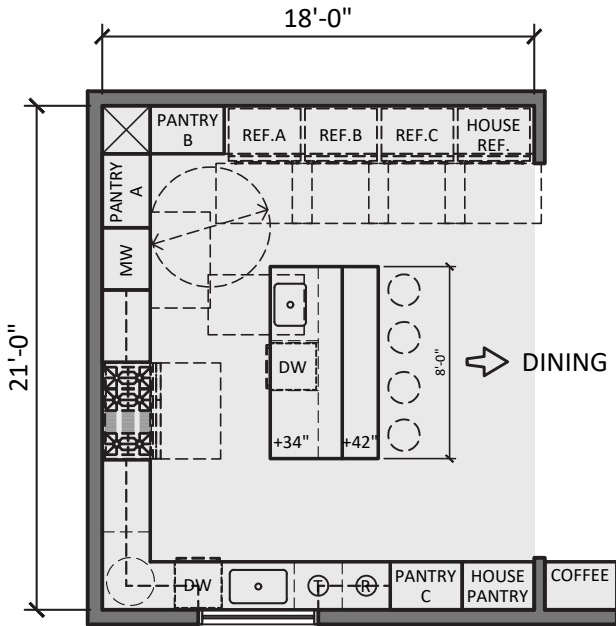


13. CAPTAIN'S OFFICE (120 S.F.)

SCALE: 1/8"=1'-0"

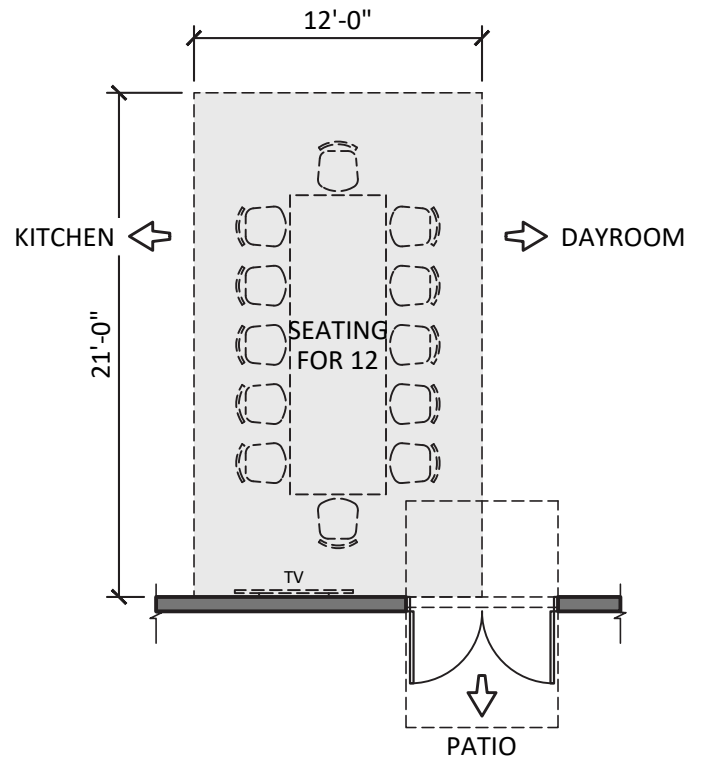


FIRE HOUSE - FIREFIGHTER QUARTERS



14. KITCHEN (378 S.F.)

SCALE: 1/8"=1'-0"



15. DINING AREA (252 S.F.)

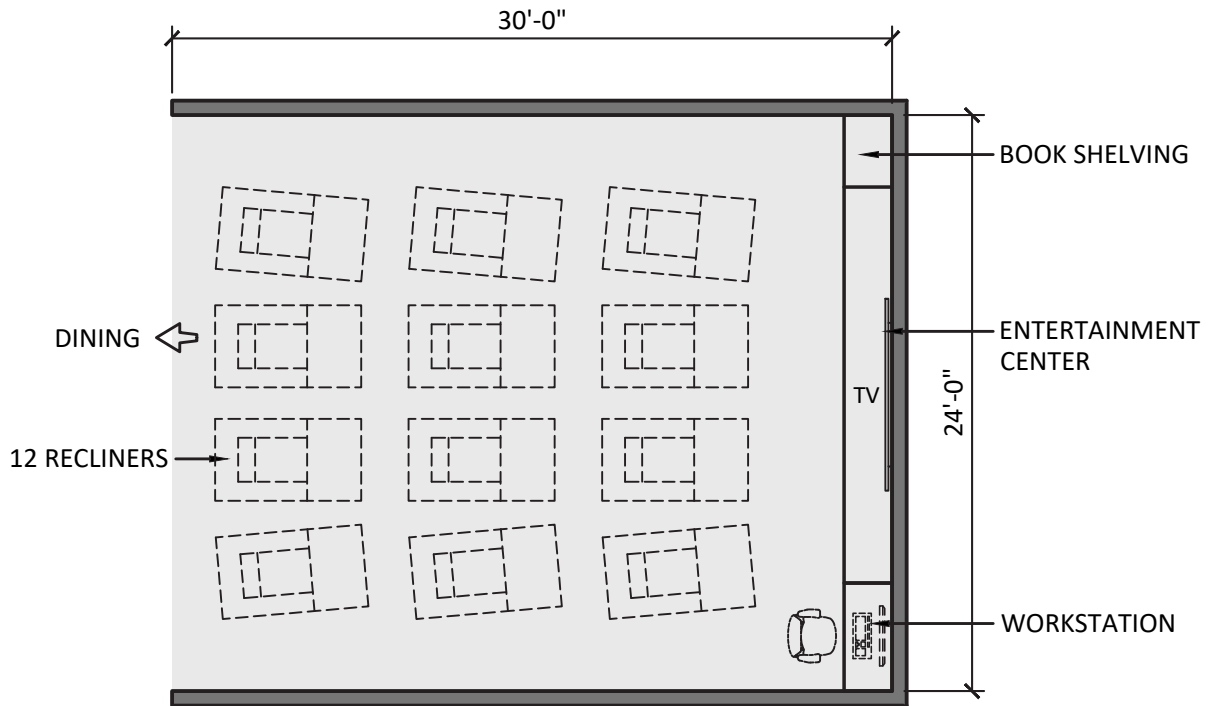
SCALE: 1/8"=1'-0"



CITY OF BERKELEY
FIRE HOUSE NO. 5
 TRUCK 5, ENGINE 5, MEDIC 5

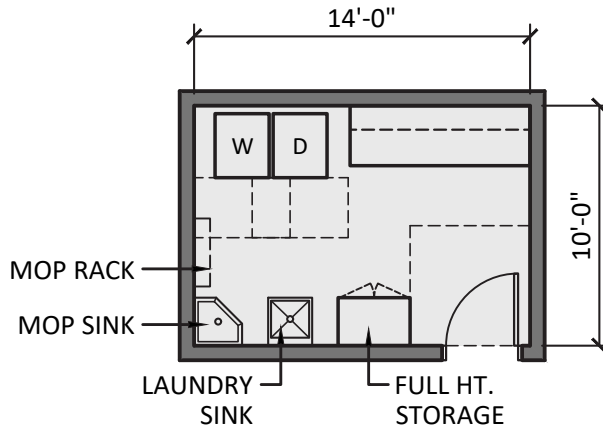


FIRE HOUSE - FIREFIGHTER QUARTERS



16. DAYROOM (720 S.F.)

SCALE: 1/8"=1'-0"

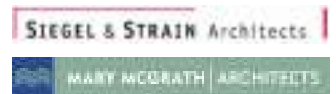


17. LAUNDRY ROOM (140 S.F.)

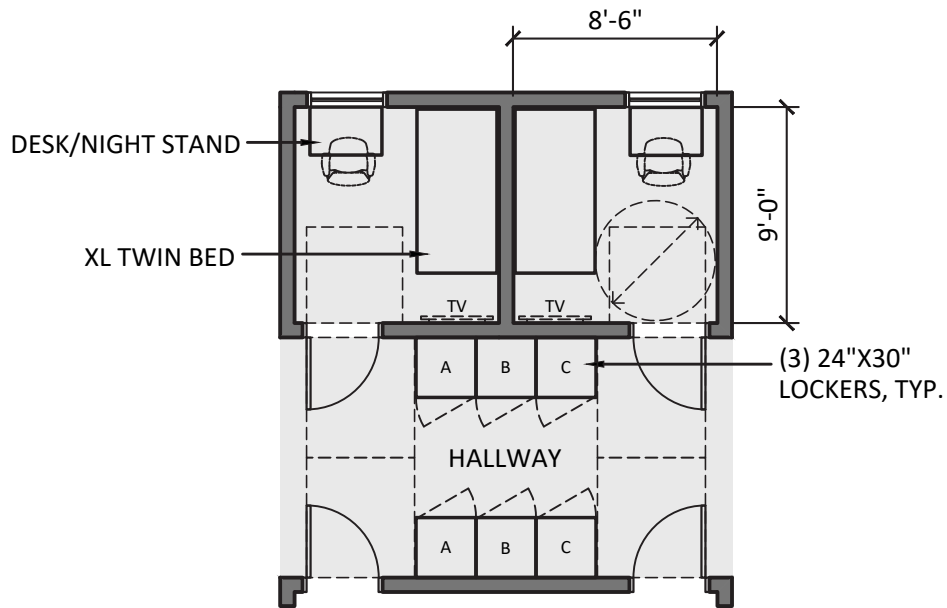
SCALE: 1/8"=1'-0"



CITY OF BERKELEY
FIRE HOUSE NO. 5
 TRUCK 5, ENGINE 5, MEDIC 5

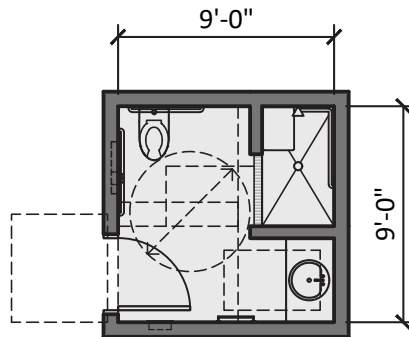


FIRE HOUSE - FIREFIGHTER QUARTERS



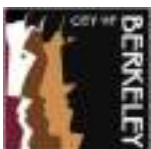
18. FIREFIGHTER BEDROOM - 9 (689 S.F.)

SCALE: 1/8"=1'-0"

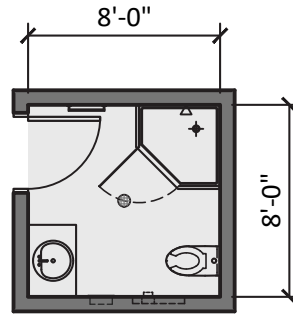


19. FIREFIGHTER BATHROOM - ADA (81 S.F.)

SCALE: 1/8"=1'-0"

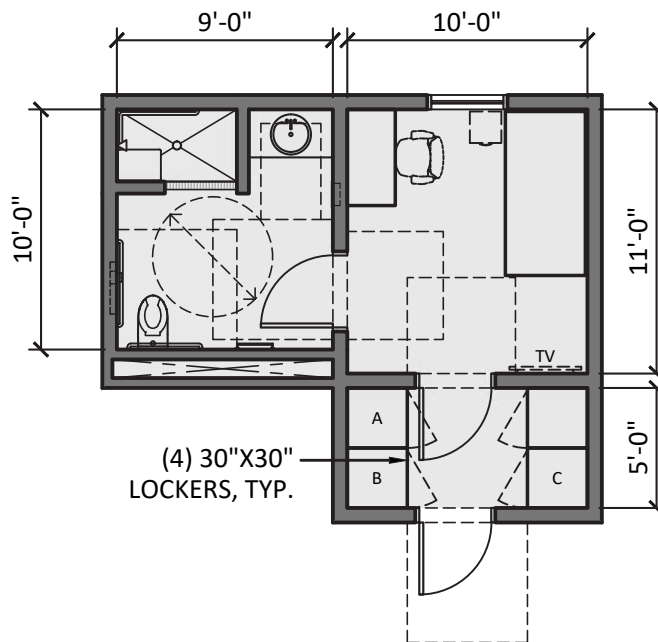


FIRE HOUSE - FIREFIGHTER QUARTERS



20. FIREFIGHTER BATHROOM - 4 (256 S.F.)

SCALE: 1/8"=1'-0"

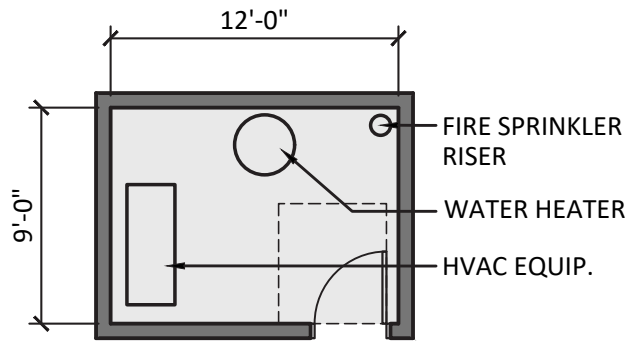


21. CAPTAIN BEDROOM, BATHROOM AND WORK AREA, ACCESSIBLE - 2 (500 S.F.)

SCALE: 1/8"=1'-0"

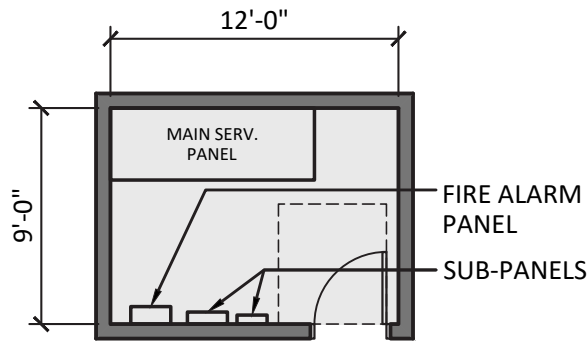


FIRE HOUSE - UTILITY SUPPORT/VERTICAL CIRCULATION



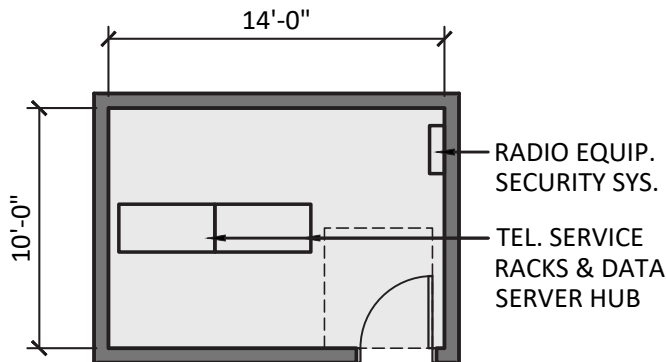
22. MECHANICAL ROOM (108 S.F.)

SCALE: 1/8"=1'-0"



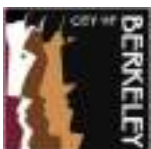
23. ELECTRICAL ROOM (108 S.F.)

SCALE: 1/8"=1'-0"

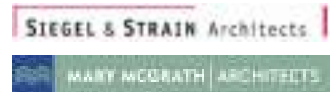


24. COMMUNICATIONS ROOM (140 S.F.)

SCALE: 1/8"=1'-0"




CITY OF BERKELEY
FIRE HOUSE NO. 5
 TRUCK 5, ENGINE 5, MEDIC 5





FIRE STATION NO. 5
 2 STORY BUILDING
 EXISTING LOT AREA: 17,300 S.F.

LEGEND:
 EXISTING BUILDING AREA

SITE / FIRST FLOOR DIAGRAM

SCALE: 1/64" = 1'-0"



CITY OF BERKELEY
 FIRE SERVICE MASTER PLAN
 SITE STUDIES

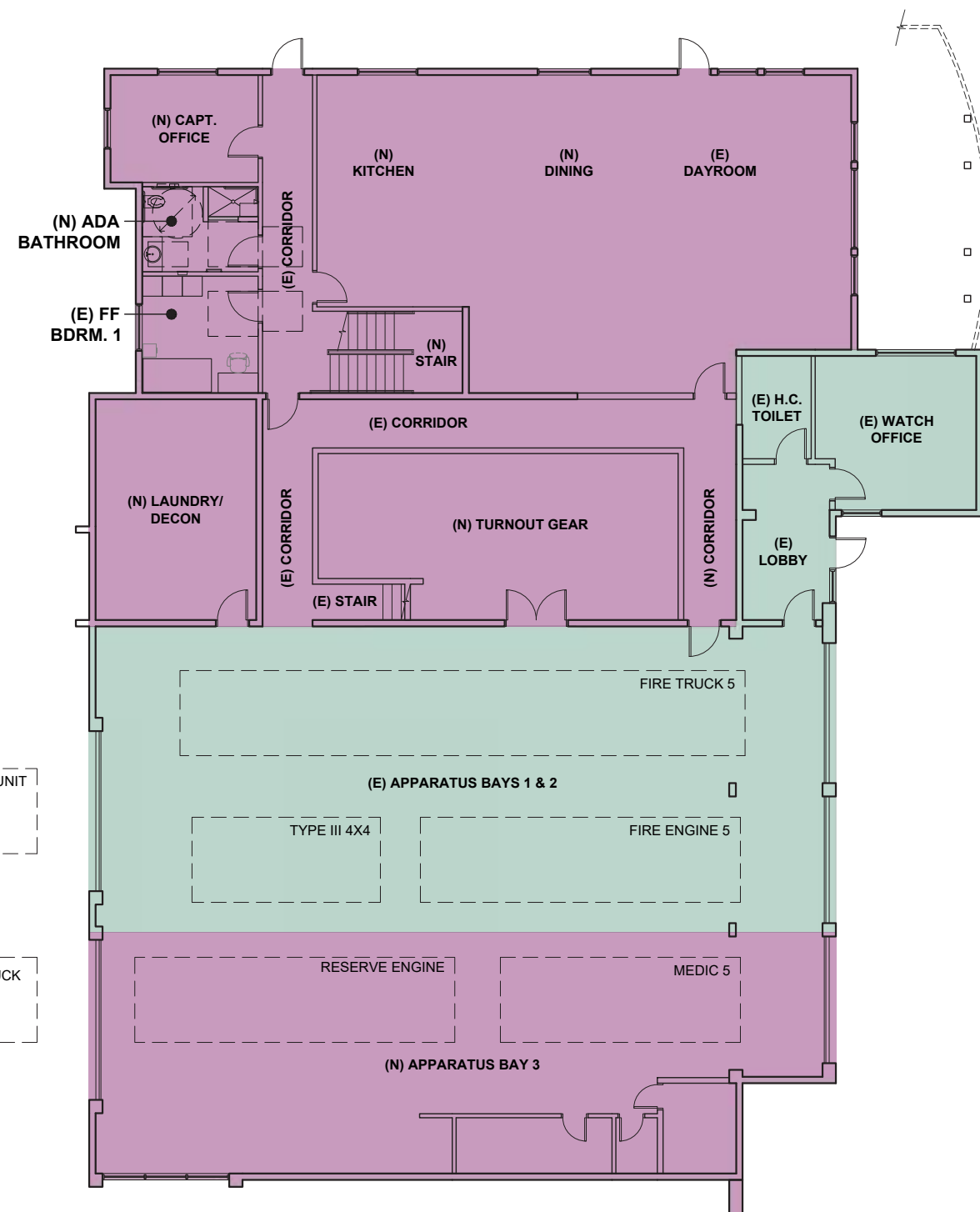
TITLE:

FIRE STATION NO. 5 - SITE PLAN (OPTION 1 - BLDG. RENOVATION & ADDITIONAL AREA)
 2680 SHATTUCK AVENUE, BERKELEY, CA 94704

03.17.2023

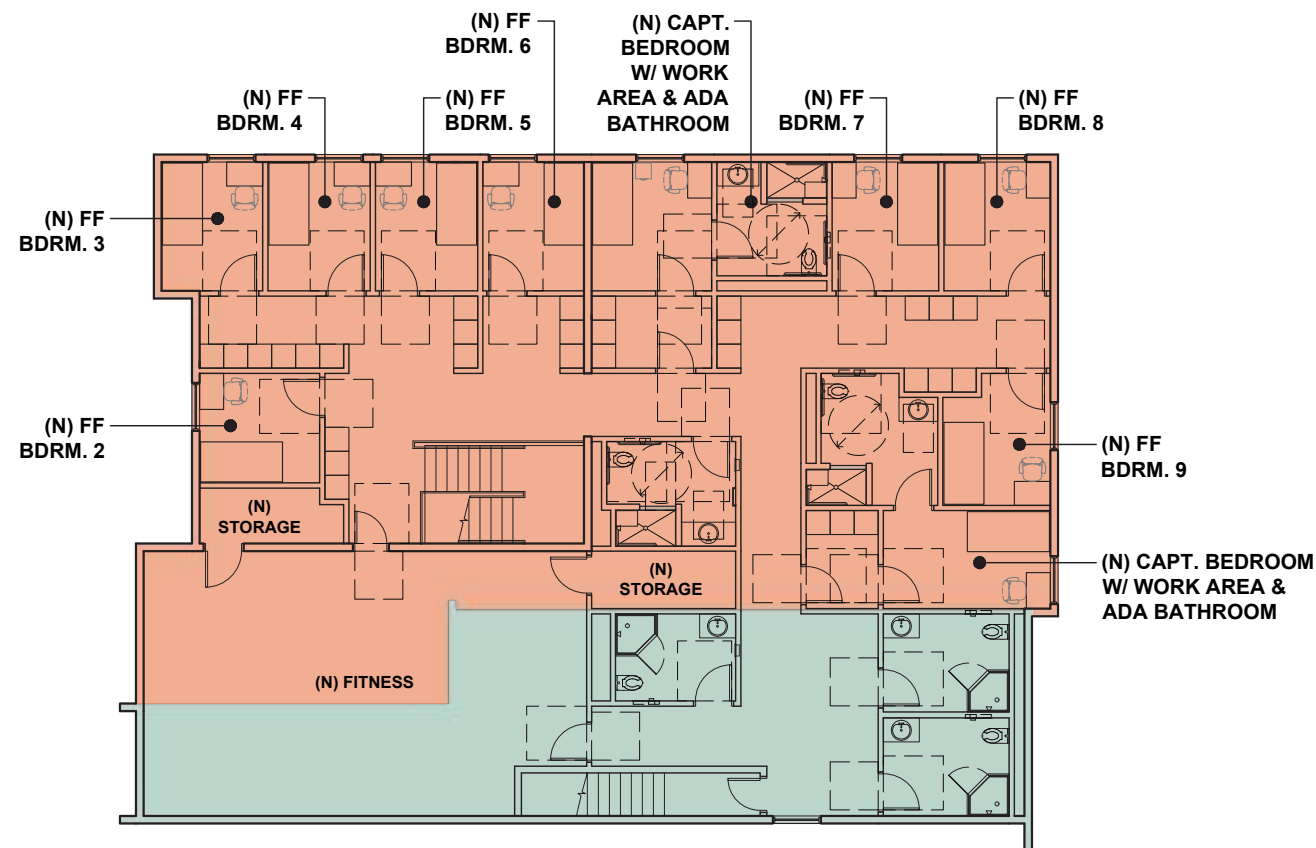
SIEGEL & STRAIN Architects
 6201 DOYLE STREET, SUITE B,
 EMERYVILLE, CA 94608
 phone: 510.547.8092 | www.siegelstrain.com

MARY MCGRATH ARCHITECTS
 610 16th STREET, SUITE 219, OAKLAND, CA 94612
 phone: 510.208.9400
 www.marymcgratharchitects.com



FIRST FLOOR DIAGRAM

SCALE: 1/16" = 1'-0"



SECOND FLOOR DIAGRAM

SCALE: 1/16" = 1'-0"

FIRE STATION NO. 5

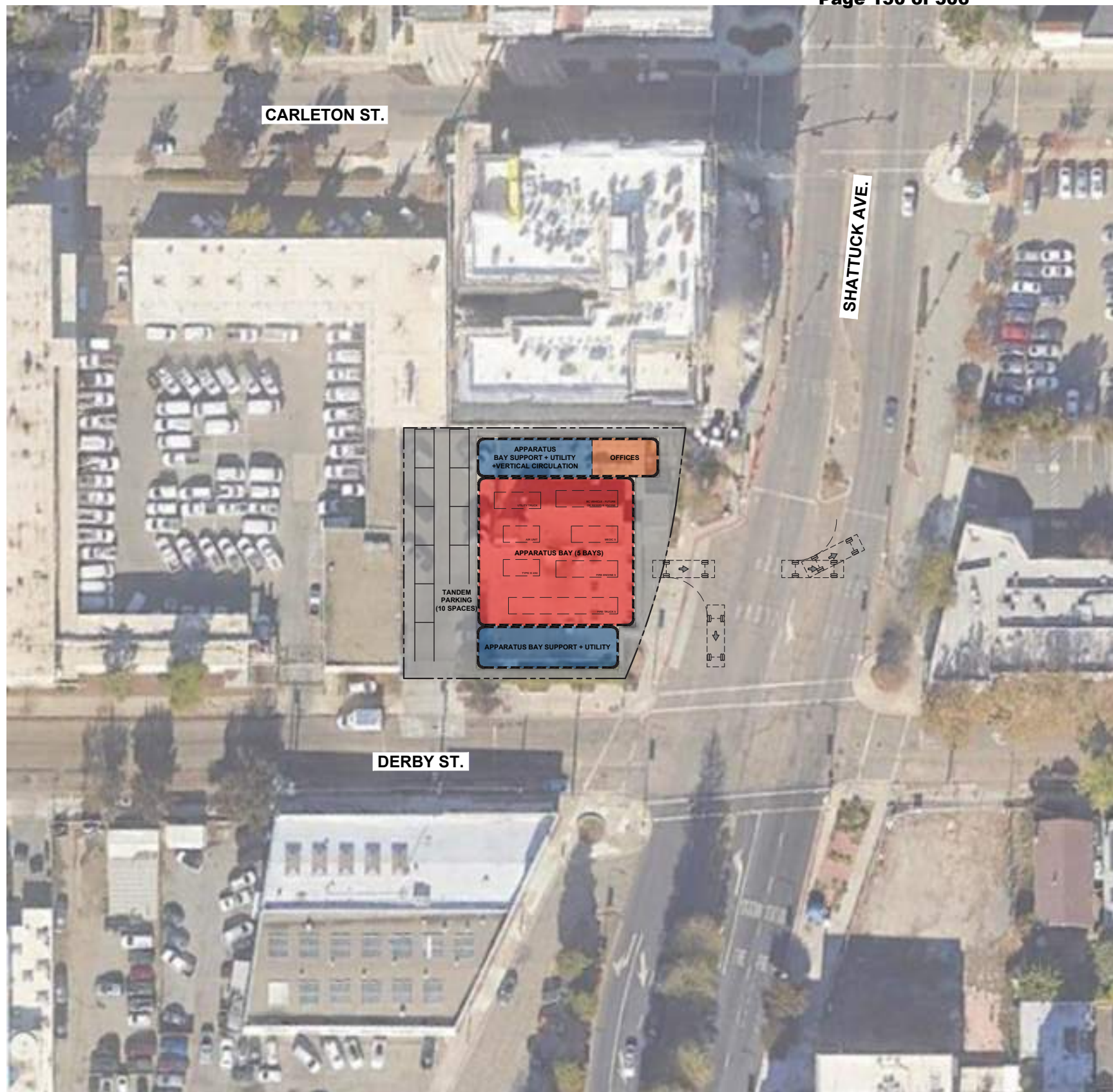
2 STORY BUILDING

EXISTING SECOND FLOOR AREA: 1,132 S.F.
 EXISTING FIRST FLOOR AREA: 8,404 S.F.
 EXISTING TOTAL BLDG. AREA: 9,536 S.F.
 ADDED SECOND FLOOR AREA: 3,004 S.F.

LEGEND:

- EXISTING BUILDING AREA
- ADDED BUILDING AREA
- RENOVATION AREA





SITE / FIRST FLOOR DIAGRAM

SCALE: 1/64" = 1'-0"

FIRE STATION NO. 5

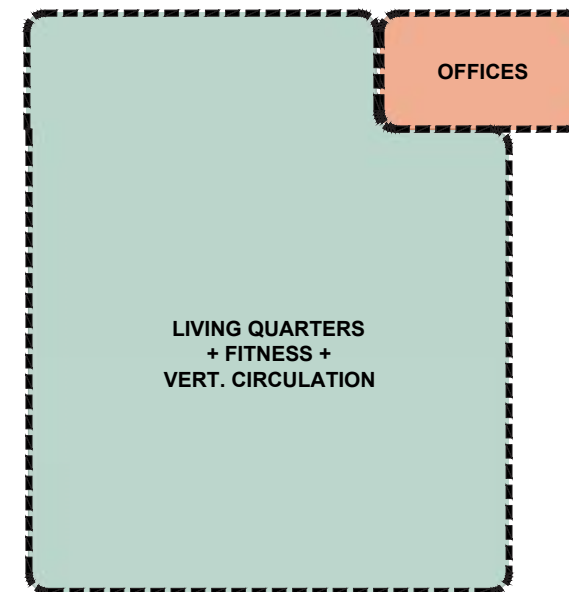
2 STORY BUILDING

EXISTING LOT AREA: 17,300 S.F.

PROPOSED SECOND FLOOR AREA: 7,099 S.F.

PROPOSED FIRST FLOOR AREA: 9,884 S.F.

PROPOSED TOTAL BLDG. AREA: 16,983 S.F.



SECOND FLOOR DIAGRAM

SCALE: 1/32" = 1'-0"



CITY OF BERKELEY
FIRE SERVICE MASTER PLAN
SITE STUDIES

TITLE:

FIRE STATION NO. 5 - OPTION 2 (NEW BUILDING & EXISTING PARKING AREA)

2680 SHATTUCK AVENUE, BERKELEY, CA 94704

03.17.2023

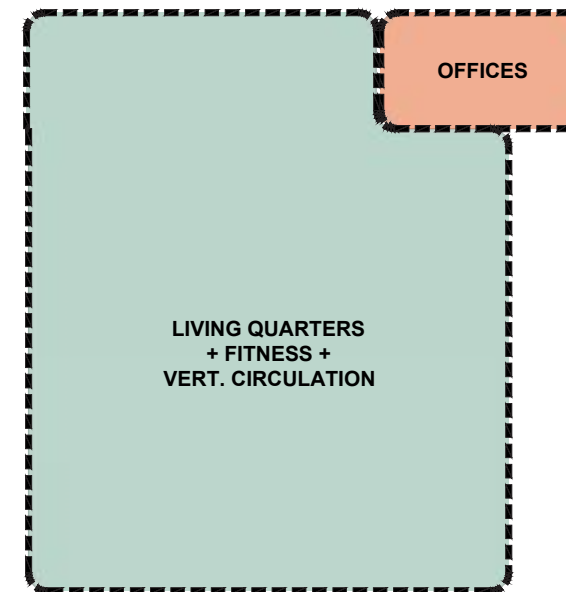
SIEGEL & STRAIN Architects
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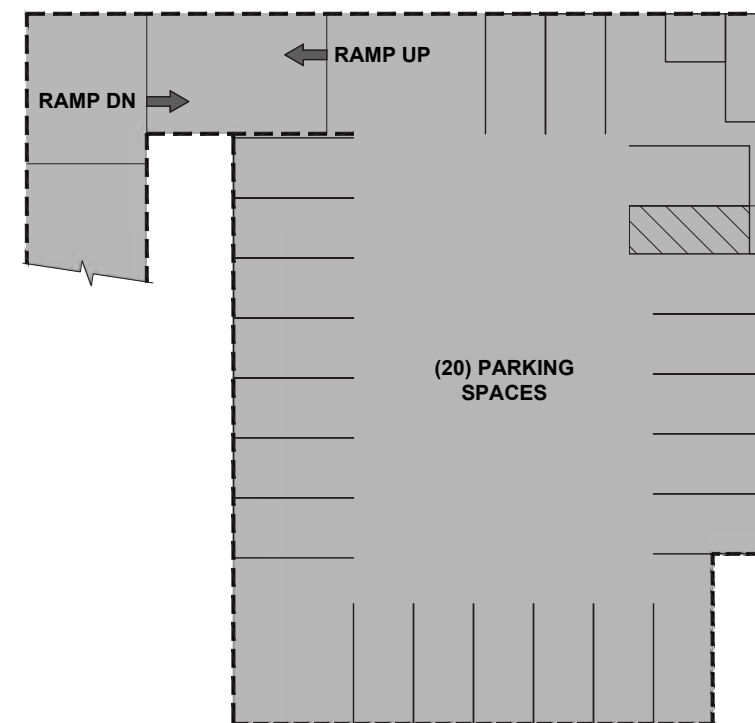
SITE / FIRST FLOOR DIAGRAM

SCALE: 1/64" = 1'-0"



SECOND FLOOR DIAGRAM

SCALE: 1/32" = 1'-0"



BASEMENT PARKING DIAGRAM

SCALE: 1/32" = 1'-0"

FIRE STATION NO. 5
 2 STORY BUILDING
 EXISTING LOT AREA: 17,300 S.F.
 PROPOSED SECOND FLOOR AREA: 7,099 S.F.
 PROPOSED FIRST FLOOR AREA: 9,884 S.F.
 PROPOSED BASEMENT PARKING: 9,963 S.F.
 PROPOSED TOTAL BLDG. AREA: 26,946 S.F.







CITY OF BERKELEY
FIRE HOUSE NO. 6

999 CEDAR STREET, BERKELEY, CA 94710

DRAFT
MAY 08, 2023

PROJECT DESCRIPTION

The existing Fire House No. 6 is a one story, 4,596 SF station and was originally designed to provide operational space and living quarters for two personnel in the 1960's. The facility was seismically retrofitted and expanded in the 1990's. The fire station currently houses 3 personnel per shift with a single unit, Engine 6 (3). The staffing is anticipated to increase to 4 personnel per shift.

Because this station is not anticipated to add a new unit, only a new staff member, it was a strong candidate for renovation and addition. The recommended solution includes:

1. Renovate the entire station and expand to 6,312 SF to provide a private station office, dedicated sleeping rooms, turnout storage and a dedicated fitness room.

The ROM Project Budget for the Recommended Option is \$12-16M; not including escalation beyond 2024.



Fire House No. 6**Engine 6, Reserve Engine****999 Cedar Street****CONCEPTUAL SPACE NEEDS OUTLINE**

Fire House Company Make-up - Staffing Per shift	Current	Future
Engine 6 - Captain, Engineer, Firefighter/Paramedic	3	4
Reserve Engine	0	0
TOTAL CURRENT AND FUTURE STAFFING:	3	4

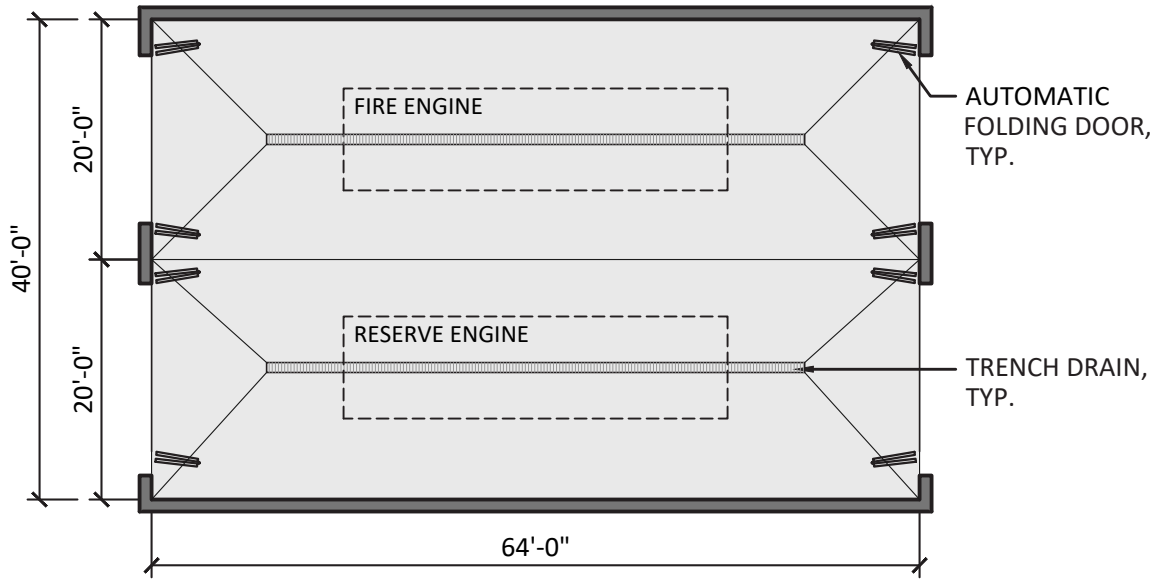
No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
SITE OPERATIONS				
	Firefighter Parking	8 firefighter parking spaces, secure and separate from public parking	2,000	10'x20' ea.
	Visitor Parking	One regular and one ADA adjacent to entrance, shared with other public parking areas.	600	10' x 20
	Apparatus Washing Area	Adjacent to hydrant for refill and testing; locate at rear of App. Bays; provide clarifier for run-off	0	rear apron
	Hose Maintenance Area	Use rear apron area for cleaning hose; roll wet and store on apparatus	0	rear apron
	Yard Hydrant	Located at rear yard	0	rear apron
	Generator Area	Located at rear yard	150	10'x15'
	Fueling Area	Above Grade Convault System - 500 GA	240	12' x 20'
	Trash Enclosure	Exterior access for service; space for dumpster and recycling bins, Covered	150	10'x15'
	Flagpole	Flagpole area with lighting	25	5'x5'
	Outdoor Patio or Deck	Outdoor uses; adjacent to Kitchen	200	10'x20'

No.	Type of Space	Space Attributes	Square Footage		Renovation SF
			Replacement Program	Size	
FIRE HOUSE - APP BAY/APP BAY SUPPORT					
1	Apparatus Bay (One Engine, Reserve Engine)	Engine and Reserve Engine. Systems include tailpipe exhaust, power and air cord drops to each vehicle; electric heating system; night lighting; bi-folding auto-close doors; trench drains	2,560	(2) 20' x 64'	2,037
2	Medical Supply Closet	Heavy Duty Shelving; medical supplies off of apparatus bay.	24	3' x 8'	26
3	Clean Up	Clean-up sink, shelving, Alcove in bay.	18	3' x 6'	NIC
4	Equipment Storage	Yard equipment, bike storage (LEED Requirement), compressor	64	8' x 8'	NIC

No.	Type of Space	Space Attributes	Square Footage		Renovation SF
			Replacement Program	Size	
FIRE HOUSE - APP BAY/APP BAY SUPPORT CONTINUED					
5	Turnout Gear Room	Two lockers for each assigned personnel (4 Personnel per day x 3 = 12 x 2= 24 lockers); four unassigned for 28 total lockers. Power at each locker, continuous exhaust fan, floor drain, heavy duty shelving; wildland gear bags. Dirty area in room with Extractor and Dryer, decon shower and hanging area. Part of response return path.	648	24' x 27'	583
6	Janitor Room	Service sink, mop rack; janitorial supplies;	48	6' x 8'	inc. in T.O.
7	Work Shop Alcove	Work bench/shop area for vise, peg board, tool storage with large flat work surface, Misc. equipment storage , tool chest, Full height storage cabinet, shop sink and eyewash.	120	4' x 30'	NIC
8	Firefighter Restroom	Fire fighter toilet and sink, off of apparatus bay	64	8' x 8'	55
9	Fitness Room	Dedicated Fitness Room	624	24' x 26'	393
Fire House - App Bay/Support Subtotal			4,170		3,094
FIRE HOUSE - FIREFIGHTER OFFICES					
FIRE HOUSE - FIREFIGHTER OFFICES					
10	Fire House Public Lobby	Lobby with seating; adjacent to the public restroom. Service window separation between Watch Office and lobby. Alcove in Lobby for Blood Pressure and other wellness checks.	180	12' x 15'	NIC
11	Fire House Public Restroom	One All Gender Restroom, accessible, off of Lobby	64	8' x 8'	NIC
12	Watch Office	Workstations for 2-persons; provide space for lateral file cabinets (one cabinet per company) copy machine and office supply storage, book shelving; conference function	144	12' x 12'	127
13	Captains Office	Workstation for 1-person; provide space for lateral file cabinets.	120	10' x 12'	NIC
Fire House - Firefighter Offices Subtotal			508		
FIRE HOUSE - FIREFIGHTER QUARTERS					
FIRE HOUSE - FIREFIGHTER QUARTERS					
14	Kitchen	3-refrigerators; 3-shift pantries; 1-house pantry and refrigerator; 1-dishwasher; electric induction range/oven with hood; large microwave; large, 12" deep sink with disposer; prep sink at island; trash and recycling areas; coffer service area; open to Dining Area	378	18' x 21'	245

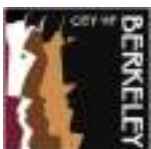
15	Dining Area	Seating for 6 persons; wall-mounted TV; open to kitchen; open to Day Room	192	12' x 16'	inc. in Kitchen
16	Day Room	Seating for 4 with recliner chairs; entertainment center and book shelving; Open to Dining, one work station along wall.	352	16' x 22'	308
No.	Type of Space	Space Attributes	Square Footage		Renovation SF
FIRE HOUSE - FIREFIGHTER QUARTERS CONTINUED			Replacement Program	Size	
17	Laundry Room	Service sink; countertop; janitorial supplies; mop rack, Washer/Dryer	140	10' x 14'	NIC
18	Firefighter Bedroom	3-separate bedrooms each containing desk, chair, wall-mounted TV, 1 bed with lockers outside door.	230	8'-6" x 9' (3)	348
19	Firefighter Bathroom ADA	1 accessible restroom with shower, sink, toilet	81	9' x 9'	132
20	Firefighter Bathrooms	1 restrooms with shower, sink, toilet	64	8' x 8' (1)	76
21	Captain Bedroom, Bathroom and Work Area, Accessible	1 bedroom containing desk, chair, wall-mounted TV, 1 bed, with accessible in-suite bathroom.	250	10' x 11' 9' x 10' 5' x 10'	299
Fire House - Firefighter Quarters Subtotal			1,687		1,408
No.	Type of Space	Space Attributes	Square Footage		Renovation SF
UTILITY SUPPORT			Replacement Program	Size	
22	Mechanical Room	HVAC equipment; hot water heater; fire sprinkler riser	108	9' x 12'	NIC
23	Electrical Room	Main service panel, fire alarm panel; sub panels	108	9' X 12'	27
24	Communications Room	Telephone service racks, alert response system hub, data server hub, radio equipment; security system	140	10' x 14'	NIC
UTILITY SUPPORT Subtotal			356		27
Fire House No. 6 : Summary			Replacement Program		Renovation SF
Fire House - App Bay/Bay Support Subtotal			4,170		3,094
Fire House - Firefighter Offices Subtotal			508		0
Fire House - Firefighter Quarters Subtotal			1,687		1,408
Utility Support/Vertical Circulation Subtotal			356		27
SUBTOTAL (SF)			6,721		4,529
Circulation at 30%			2,016		1,783
FIRE HOUSE NO. 6: GRAND TOTAL (SF)			8,737		6,312

FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT

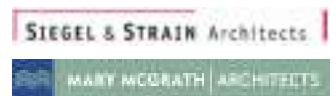


1. APPARATUS BAY - 2 DRIVE-THROUGH BAYS (2,560 S.F.)

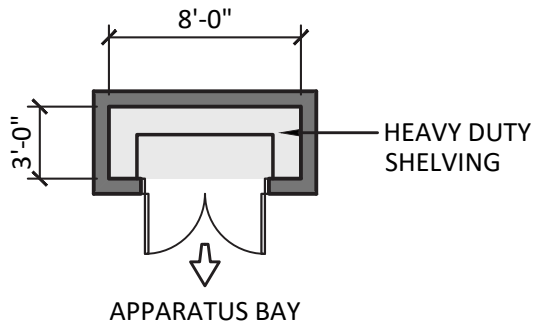
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CITY OF BERKELEY
FIRE HOUSE NO. 6
ENGINE 6 & RESERVE ENGINE

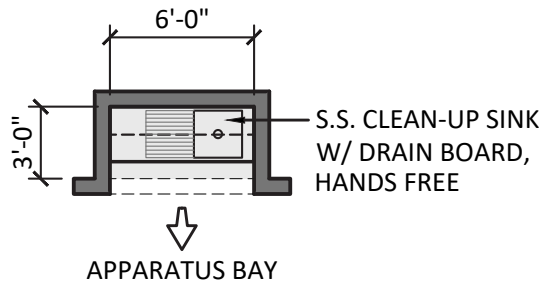


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



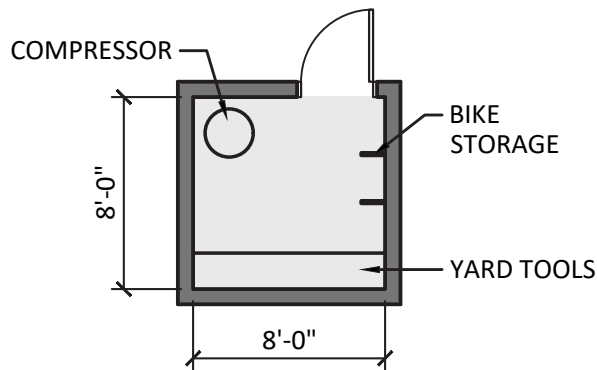
2. MEDICAL SUPPLY CLOSET (24 S.F.)

SCALE: 1/8"=1'-0"



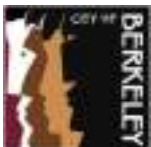
3. CLEAN-UP (18 S.F.)

SCALE: 1/8"=1'-0"

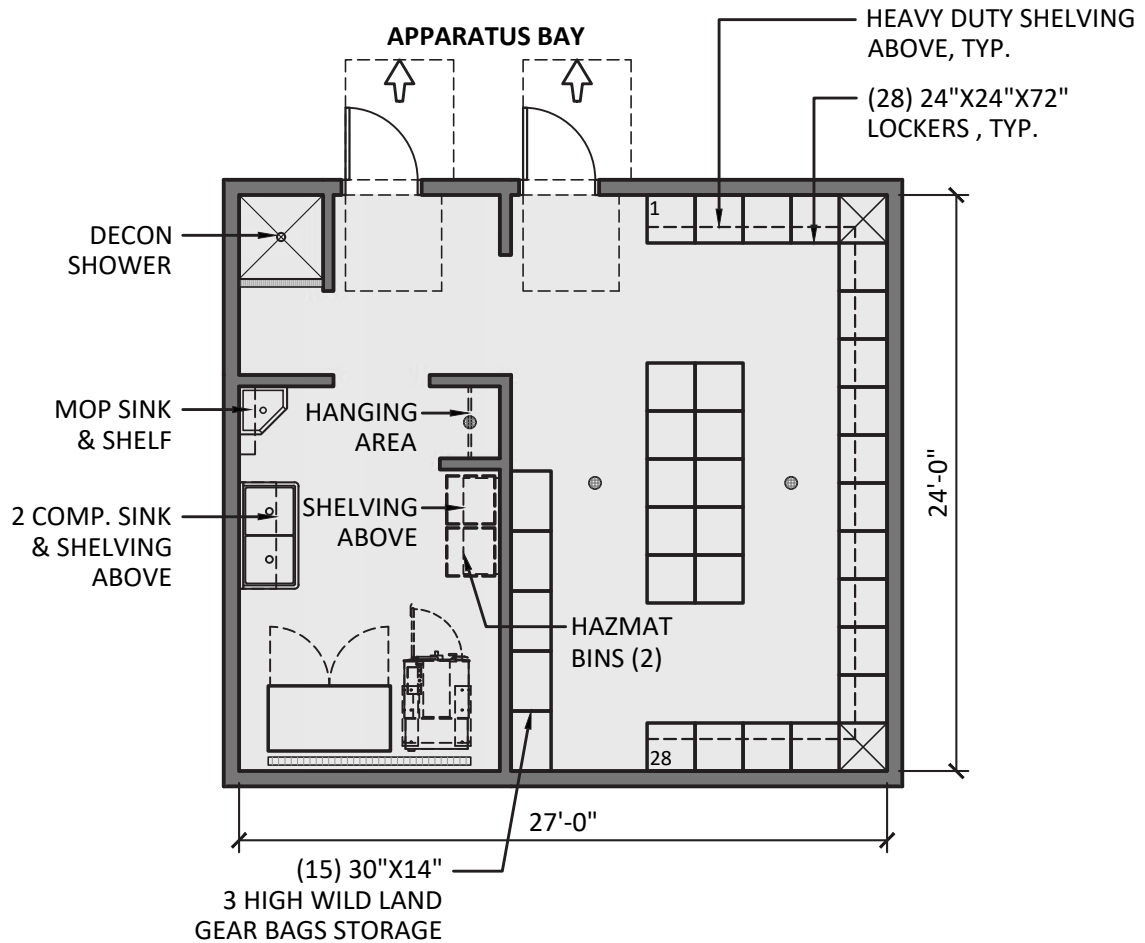


4. EQUIPMENT STORAGE (64 S.F.)

SCALE: 1/8"=1'-0"



FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT

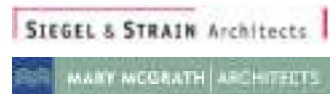


5. TURNOUT GEAR ROOM (648 S.F.)

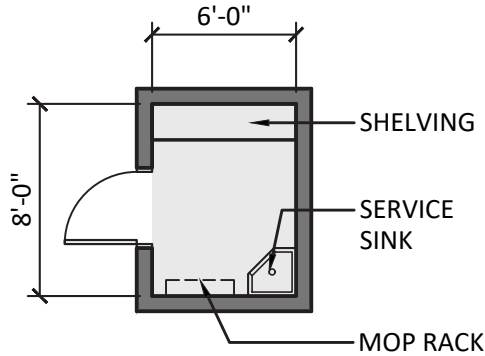
SCALE: 1/8"=1'-0"



CITY OF BERKELEY
FIRE HOUSE NO. 6
ENGINE 6 & RESERVE ENGINE

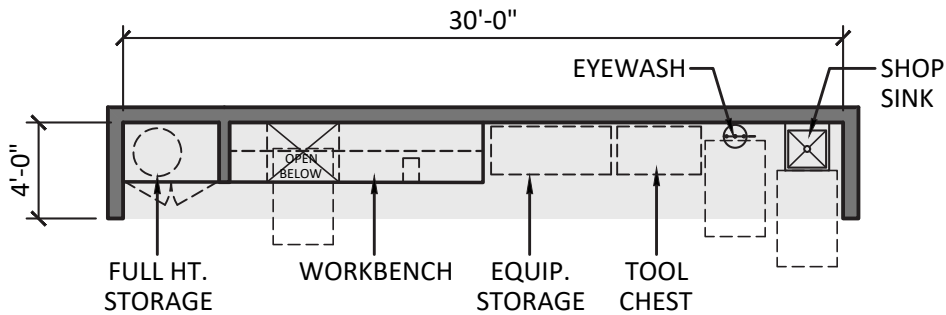


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



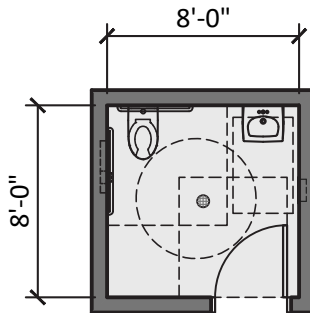
6. JANITOR ROOM (48 S.F.)

SCALE: 1/8"=1'-0"



7. WORKSHOP ALCOVE (120 S.F.)

SCALE: 1/8"=1'-0"

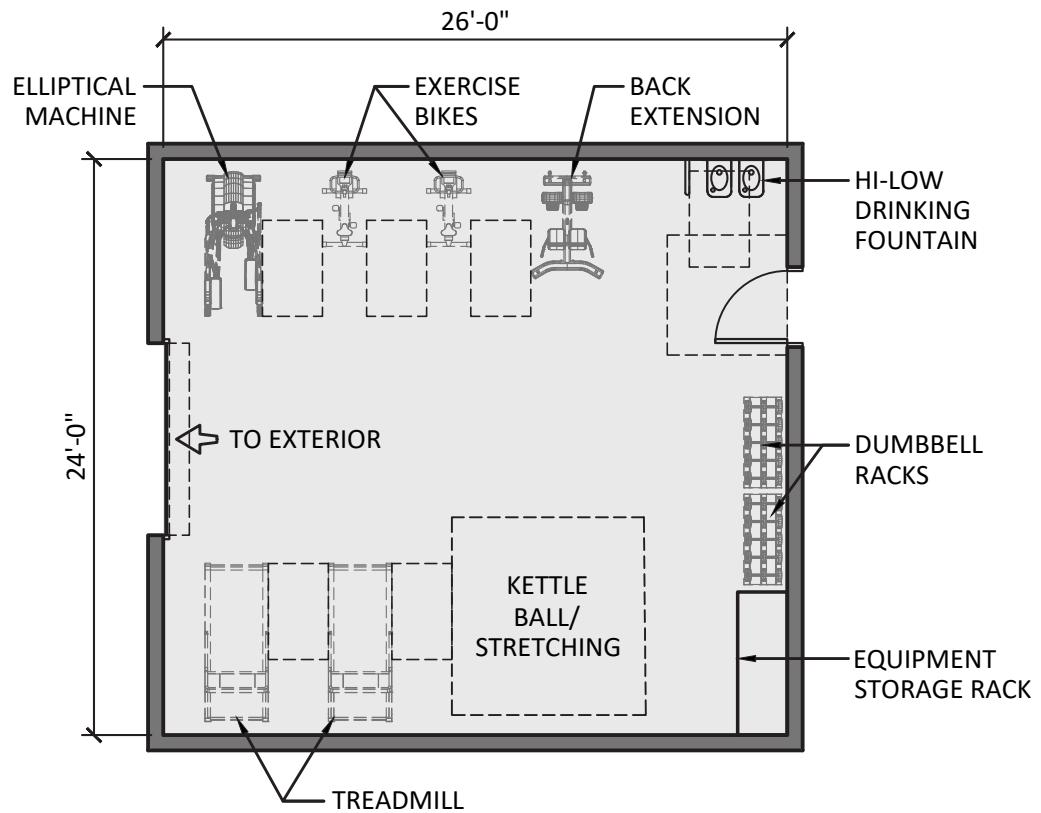


8. FIREFIGHTER RESTROOM (64 S.F.)

SCALE: 1/8"=1'-0"

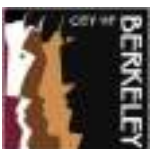


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT

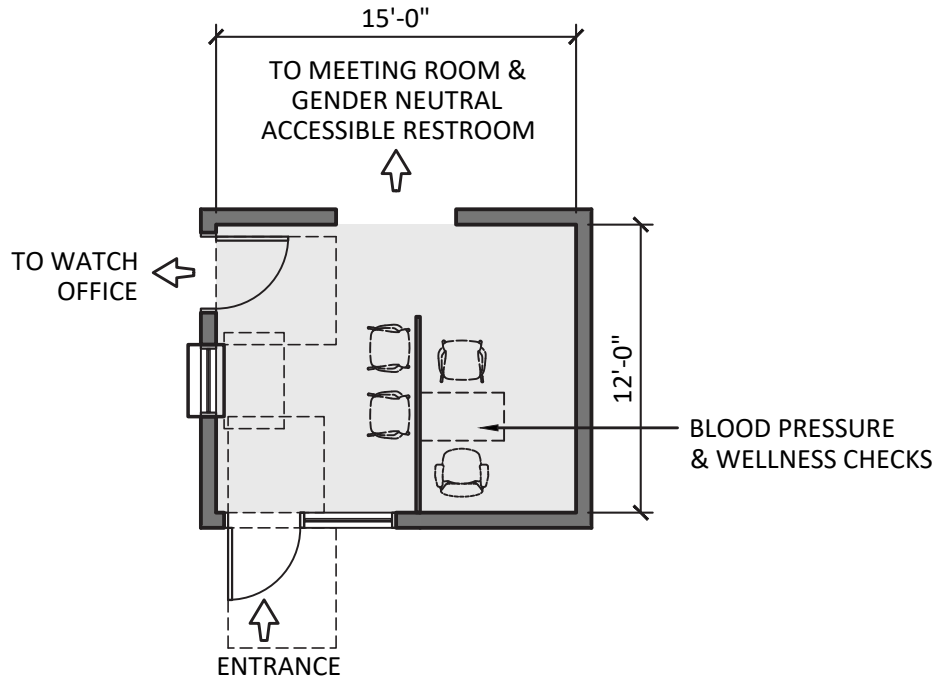


9. FITNESS ROOM (624 S.F.)

SCALE: 1/8"=1'-0"

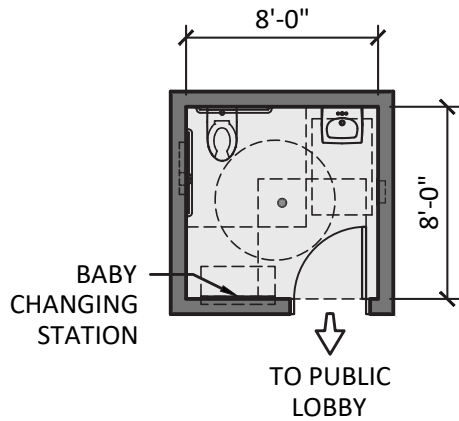


FIRE HOUSE - FIREFIGHTER OFFICES



10. FIRE HOUSE PUBLIC LOBBY (180 S.F.)

SCALE: 1/8"=1'-0"

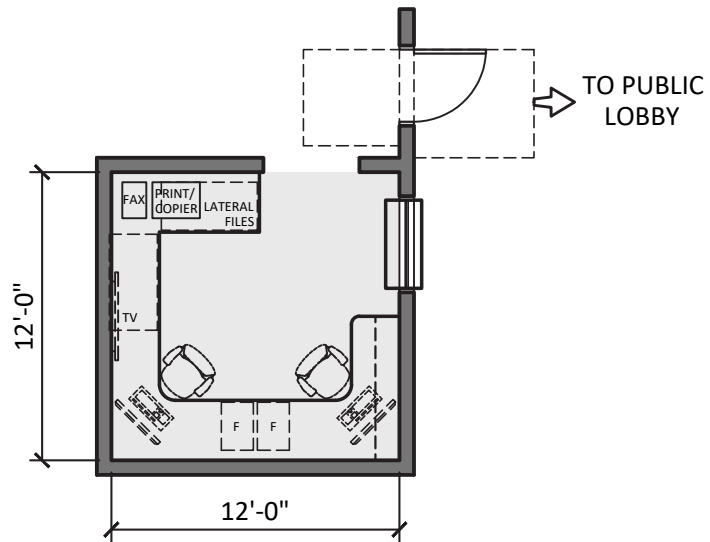


11. FIRE HOUSE PUBLIC RESTROOM (64 S.F.)

SCALE: 1/8"=1'-0"

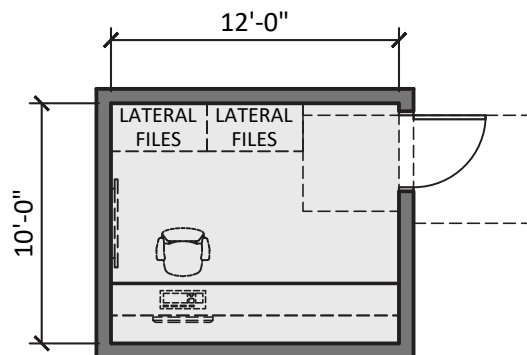


FIRE HOUSE - FIREFIGHTER OFFICES



12. WATCH OFFICE (144 S.F.)

SCALE: 1/8"=1'-0"

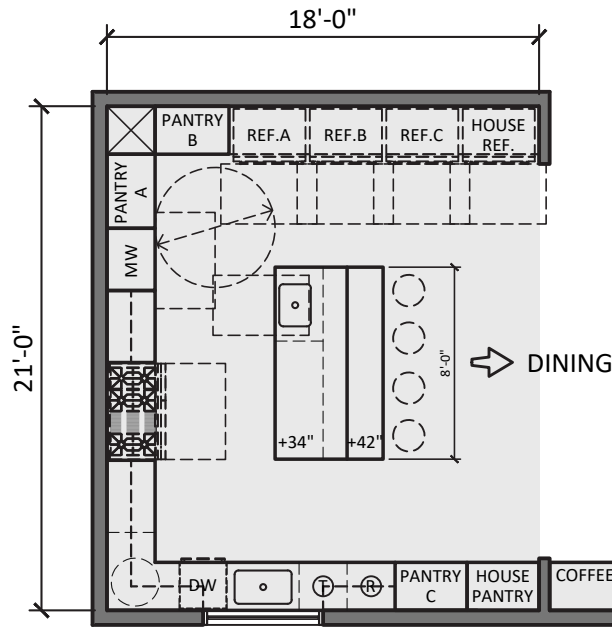


13. CAPTAIN'S OFFICE (120 S.F.)

SCALE: 1/8"=1'-0"

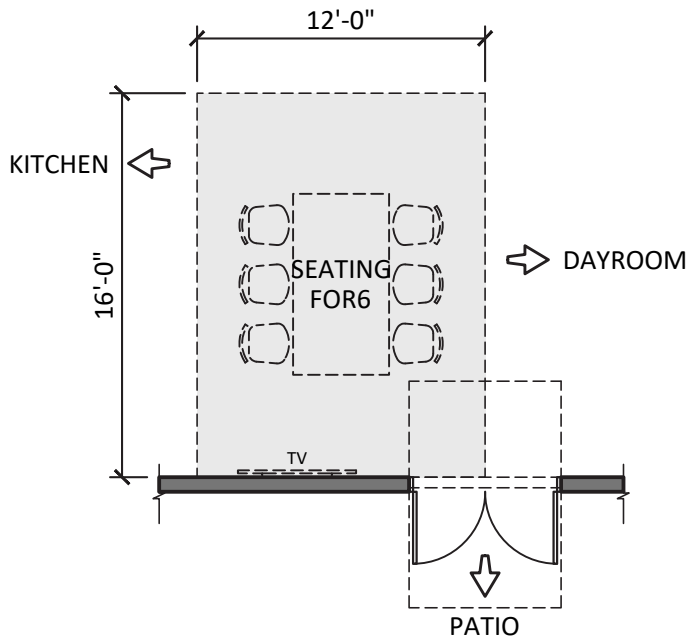


FIRE HOUSE - FIREFIGHTER QUARTERS



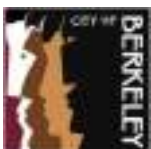
14. KITCHEN (378 S.F.)

SCALE: 1/8"=1'-0"

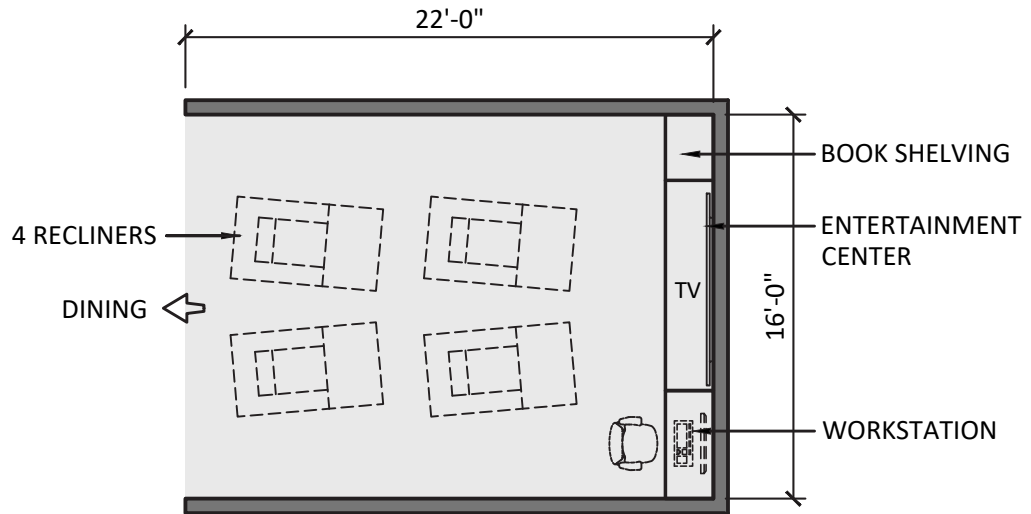


15. DINING AREA (192 S.F.)

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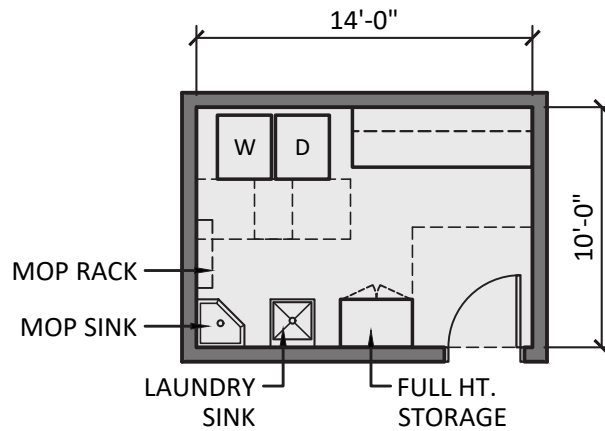


FIRE HOUSE - FIREFIGHTER QUARTERS



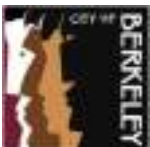
16. DAYROOM (352 S.F.)

SCALE: 1/8"=1'-0"

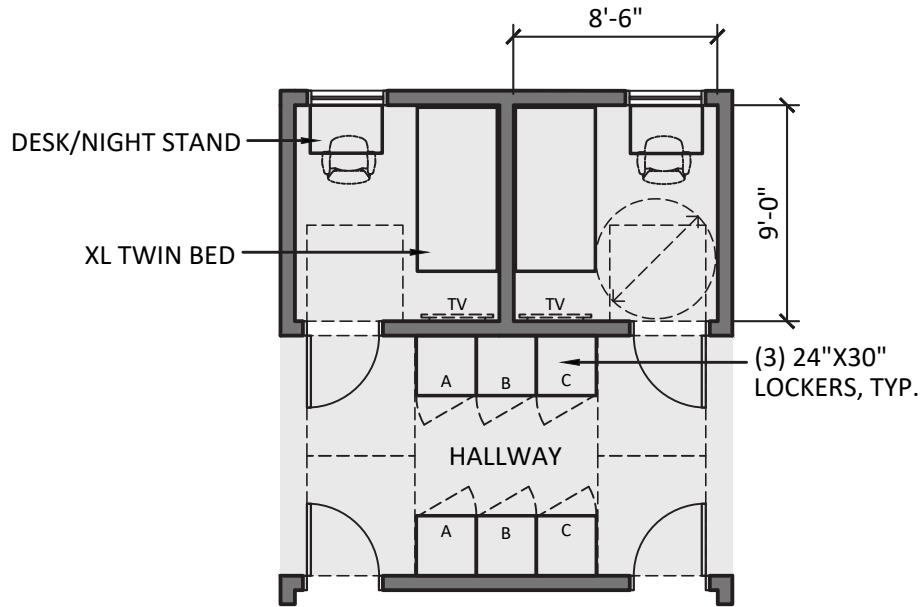


17. LAUNDRY ROOM (140 S.F.)

SCALE: 1/8"=1'-0"

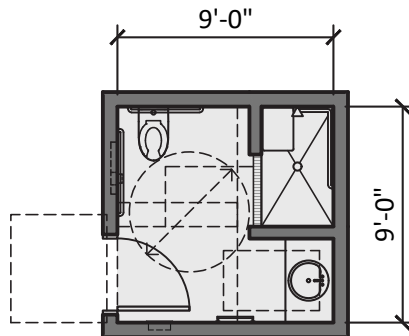


FIRE HOUSE - FIREFIGHTER QUARTERS



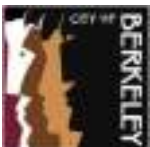
18. FIREFIGHTER BEDROOM - 3 (230 S.F.)

SCALE: 1/8"=1'-0"

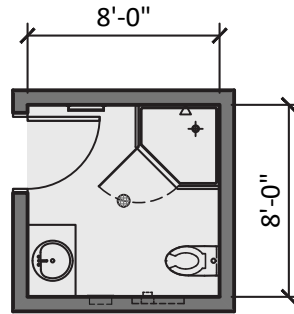


19. FIREFIGHTER BATHROOM - ADA (81 S.F.)

SCALE: 1/8"=1'-0"

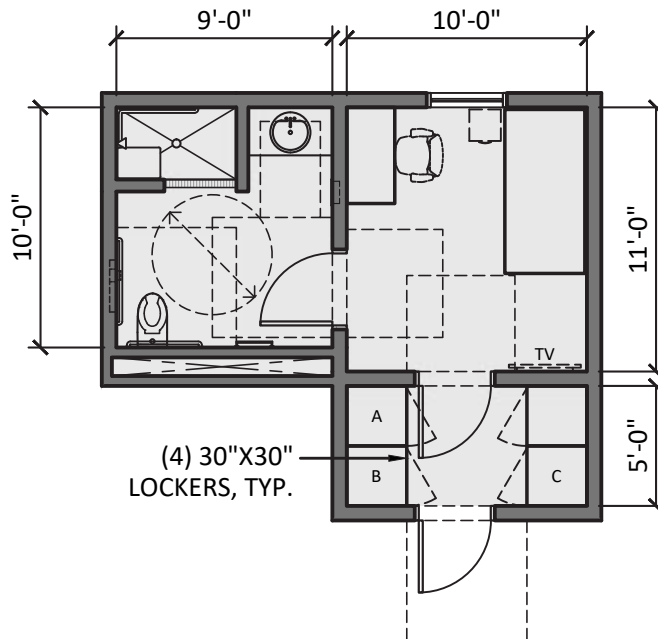


FIRE HOUSE - FIREFIGHTER QUARTERS



20. FIREFIGHTER BATHROOM (64 S.F.)

SCALE: 1/8"=1'-0"

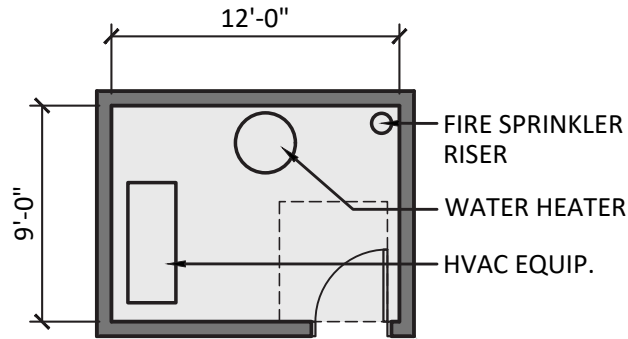


21. CAPTAIN BEDROOM & ACCESSIBLE BATHROOM (250 S.F.)

SCALE: 1/8"=1'-0"

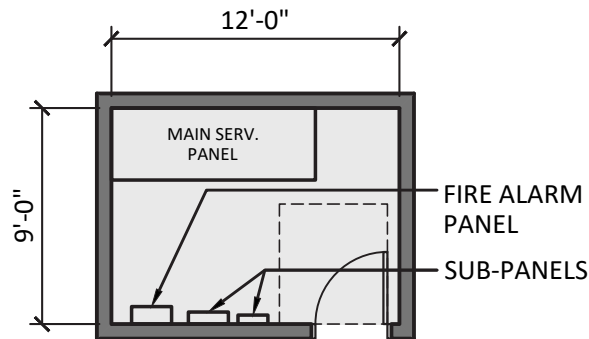


FIRE HOUSE - UTILITY SUPPORT/VERTICAL CIRCULATION



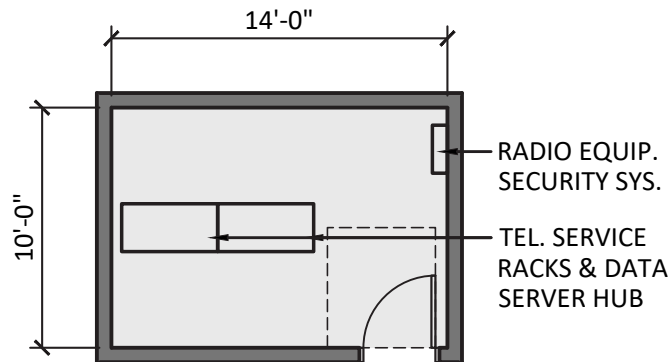
22. MECHANICAL ROOM (108 S.F.)

SCALE: 1/8"=1'-0"



23. ELECTRICAL ROOM (108 S.F.)

SCALE: 1/8"=1'-0"



24. COMMUNICATIONS ROOM (140 S.F.)

SCALE: 1/8"=1'-0"





SITE PLAN DIAGRAM

SCALE: 1/64" = 1'-0"

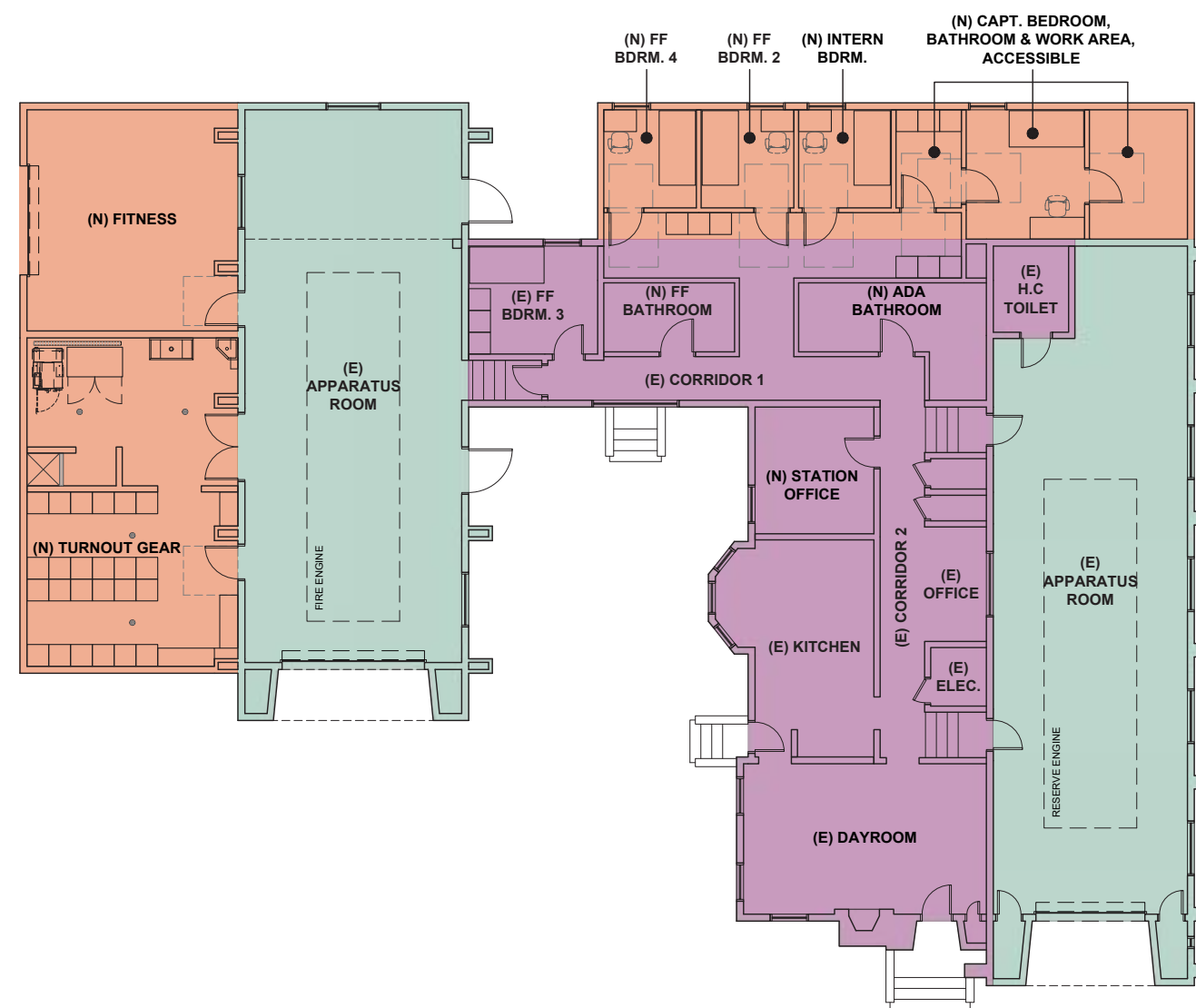
FIRE STATION NO. 6

EXISTING LOT AREA:	26,000 S.F.
EXISTING BUILDING AREA:	4,596 S.F.
ADDED BUILDING AREA:	1,990 S.F.
TOTAL BUILDING AREA:	6,312 S.F.



LEGEND:

- EXISTING BUILDING AREA
- ADDED BUILDING AREA
- RENOVATION AREA
- DEMO (E) STRUCTURE



FLOOR PLAN DIAGRAM

SCALE: 1/16" = 1'-0"



FIRE STATION 7



CITY OF BERKELEY
FIRE HOUSE NO. 7

3000 SHASTA ROAD, BERKELEY, CA 94708

DRAFT
MAY 08, 2023

PROJECT DESCRIPTION

The existing Fire House No. 7 is a two story, 6,920 SF station and was designed to provide operational space and living quarters for four personnel in 2005. The fire station currently houses 6 personnel per shift during wildfire season. Apparatus at the site include Engine 7(3) and surge unit Type VI with surge staffing. The staffing is anticipated to increase to 8 personnel per shift.

Because this station is not anticipated to add a new unit, only a new staff members, it is a strong candidate for renovation and addition. The recommended solution includes:

1. Renovate a portion of the first level to provide dedicated turnout storage and decontamination space. Expand the second level to provide additional sleeping rooms and restrooms; and a dedicated fitness room. The expansion area is proposed to be 1,080SF and will occur over the existing second level roof deck. The total building SF will increase to 8,000SF.

The ROM Project Budget for the Recommended Option is \$10-13M; not including escalation beyond 2024.



Fire House No. 7
Engine 7, Type VI (Cross staffed)
3000 Shasta Road

CONCEPTUAL SPACE NEEDS OUTLINE

Fire House Company Make-up - Staffing Per shift	Current	Future
Engine 7 - Captain, Engineer, Firefighter/Paramedic	3	4
Surge Unit Type VI (cross-staffed)	3	4
Reserve Engine Type I	0	0
Polaris (2 total)	0	0
Water Tender (2 total)	0	0
Medic Intern	1	1
TOTAL CURRENT AND FUTURE STAFFING:	7	9

No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
SITE OPERATIONS				
	Firefighter Parking	18 firefighter parking spaces, secure and separate from public parking	3,600	10'x20' ea.
	Visitor Parking	One regular and one ADA adjacent to entrance, shared with other public parking areas.	200	10' x 20
	Apparatus Washing Area	Adjacent to hydrant for refill and testing; locate at rear of App. Bays; provide clarifier for run-off	0	rear apron
	Hose Maintenance Area	Use rear apron area for cleaning hose; roll wet and store on apparatus	0	rear apron
	Yard Hydrant	Located at rear yard	0	rear apron
	Generator Area	Located at rear yard	150	10'x15'
	Fueling Area	Above Grade Convault System - 500 GA	240	12' x 20'
	Trash Enclosure	Exterior access for service; space for dumpster and recycling bins, Covered	150	10'x15'
	Flagpole	Flagpole area with lighting	25	5'x5'
	Outdoor Patio or Deck	Outdoor uses; adjacent to Kitchen	200	10'x20'

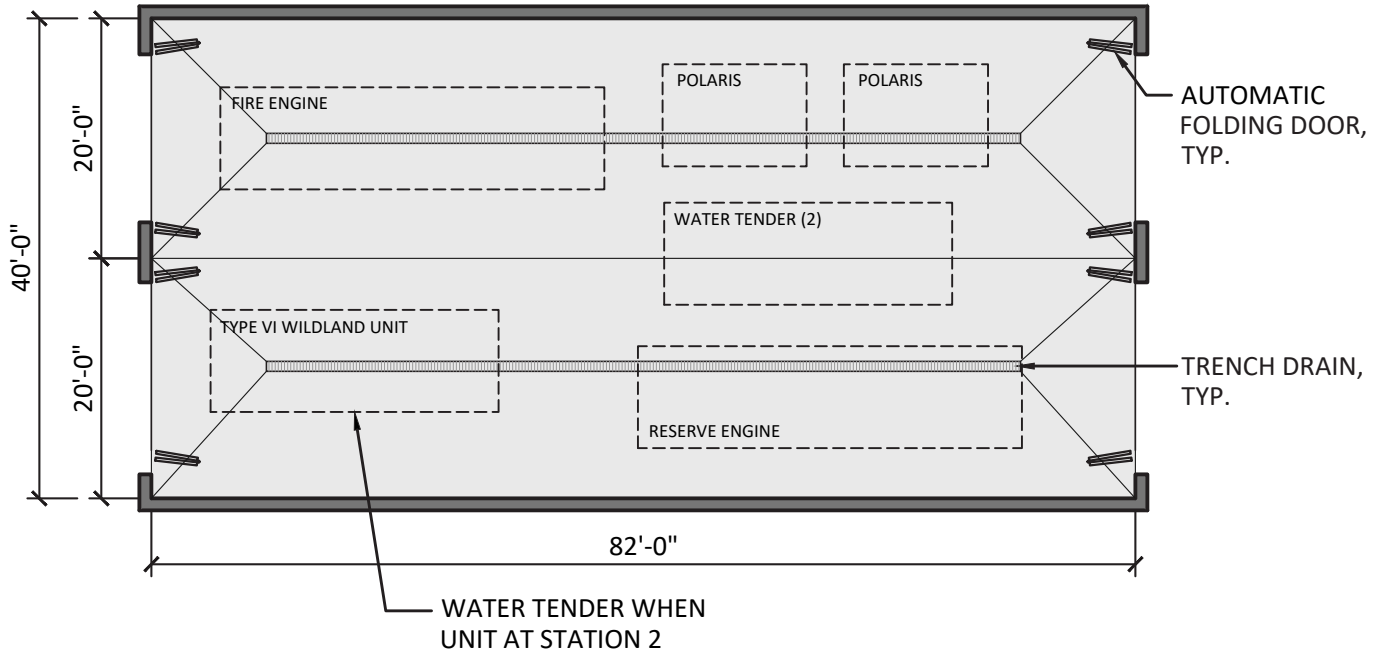
No.	Type of Space	Space Attributes	Square Footage		Renovation SF
			Replacement Program	Size	
FIRE HOUSE - APP BAY/APP BAY SUPPORT					
1	Apparatus Bay (One Engine, Type 3 Engine) Two apparatus bays	Engine, Surge Unit Type VI, Reserve Engine Type I, Polaris Vehicle (x2), Water Tender (x2). Systems include tailpipe exhaust, power and air cord drops to each vehicle; electric heating system; night lighting; bi-folding auto-close doors; trench drains	3,280	(2) 20'x 82'	2190
2	Medical Supply Closet	Heavy Duty Shelving; medical supplies off of apparatus	24	3' x 8'	34
3	Clean Up	Clean-up sink, shelving, Alcove in bay.	18	3' x 6'	18
4	Equipment Storage	Yard equipment, bike storage (LEED Requirement), compressor	64	8' x 8'	inc. in medical closet
5	Turnout Gear Room	Two lockers for each assigned personnel (5 Personnel per day x 3 = 15 x 2= 30 lockers); One locker for each surge team member (four personnel x 3= 12), four unassigned for 46 total lockers. Power at each locker, continuous exhaust fan, floor drain, heavy duty shelving; wildland gear bags. Dirty area in room with Extractor and Dryer, decon shower and hanging area. Part of response return path.	840	24' x 35'	521
6	Janitor Room	Service sink, mop rack; janitorial supplies;	48	6' x 8'	40
7	Work Shop Alcove	Work bench/shop area for vise, peg board, tool storage with large flat work surface, Misc. equipment storage , tool chest, Full height storage cabinet, shop sink and eyewash.	120	4' x 30'	173
8	Firefighter Restroom	Fire fighter toilet and sink, off of apparatus bay	64	8' x 8'	72
9	Fitness Room	Dedicated Fitness Room	624	24' x 26'	723
Fire House - App Bay/Support Subtotal			5,082		3,771
No.	Type of Space	Space Attributes	Square Footage		Renovation SF
			Replacement Program	Size	
FIRE HOUSE - FIREFIGHTER OFFICES					
10	Fire House Public Lobby	Lobby with seating; adjacent to the public restroom. Service window separation between Watch Office and lobby. Alcove in Lobby for Blood Pressure and other wellness checks.	180	12' x 15'	108
11	Fire House Public Restroom	One All Gender Restroom, accessible, off of Lobby	64	8'x8'	NIC
12	Watch Office	Workstations for 2-persons; provide space for lateral file cabinets (one cabinet per company) copy machine and office supply storage, book shelving; conference function	144	12' x 12'	196
13	Captains Office (Assume there will only be one house captain)	Workstation for 1-person; provide space for lateral file cabinets.	120	10' x 12'	inc. in Watch Office
Fire House - Firefighter Offices Subtotal			508		304

No.	Type of Space	Space Attributes	Square Footage		Renovation SF
			Replacement Program	Size	
FIRE HOUSE - FIREFIGHTER QUARTERS					
14	Kitchen	3-refrigerators; 3-shift pantries; 1-house pantry and refrigerator; 1-dishwasher; electric induction range/oven with hood; large microwave; large, 12" deep sink with disposer; prep sink at island; trash and recycling areas; coffer service area; open to Dining Area	378	18' x 21'	246
15	Dining Area	Seating for 9 persons; wall-mounted TV; open to kitchen; open to Day Room	240	12' x 20'	246
16	Day Room	Seating for 9 with recliner chairs; entertainment center and book shelving; Open to Dining, one work station along wall.	528	22' x 24'	475
17	Laundry Room	Service sink; countertop; janitorial supplies; mop rack, Washer/Dryer	140	10' x 14'	157
18	Firefighter Bedroom	4-separate bedrooms each containing desk, chair, wall-mounted TV, 1 bed with lockers outside door.	306	8'-6" x 9' (4)	
19	Surge Unit Bedroom	1 bedroom containing (4) murphy beds	253	11' x 23'	240
20	Firefighter Bathroom ADA	1 accessible restroom with shower, sink, toilet	81	9' x 9'	81
21	Firefighter Bathrooms	3 restrooms with shower, sink, toilet	192	8' x 8' (3)	285
22	Captain Bedroom, Bathroom and Work Area, Accessible	1 bedroom containing desk, chair, wall-mounted TV, 1 bed, with accessible in-suite bathroom.	250	10' x 11' 5" x 10' 10' x 9'	161
Fire House - Firefighter Quarters Subtotal			2,368		1,891

No.	Type of Space	Space Attributes	Square Footage		Renovation SF
			Replacement Program	Size	
UTILITY SUPPORT/VERTICAL CIRCULATION					
23	Mechanical Room	HVAC equipment; hot water heater; fire sprinkler riser	108	9' x 12'	40
24	Electrical Room	Main service panel, fire alarm panel; sub panels	108	9' x 12'	22
25	Communications Room	Telephone service racks, alert response system hub, data server hub, radio equipment; security system	140	10' x 14'	NIC
26	Stairs	(2x) for each level. Two stairways from the second floor for exiting	576	18' x 8'	144
27	Fire House Elevator	Elevator and machine room	240	8' x 10' (3)	100
Utility Support/ Vertical Circulation Subtotal			1,172		306

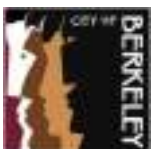
Engine 7, Type VI Cross Staffed: Summary		Replacement Program	Renovation SF
	Fire House - App Bay/Bay Support Subtotal	5,082	3,771
	Fire House - Firefighter Offices Subtotal	508	304
	Fire House - Firefighter Quarters Subtotal	2,368	1,891
	Utility Support/Vertical Circulation Subtotal	1,172	306
	BUILDING SUBTOTAL (SF)	9,130	6,272
	Circulation at 30%	2,739	1,728
	Engine 7, Type VI Cross Staffed: GRAND TOTAL (SF)	11,869	8,000

FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



1. APPARATUS BAY - 2 DRIVE-THROUGH BAYS (3,280 S.F.)

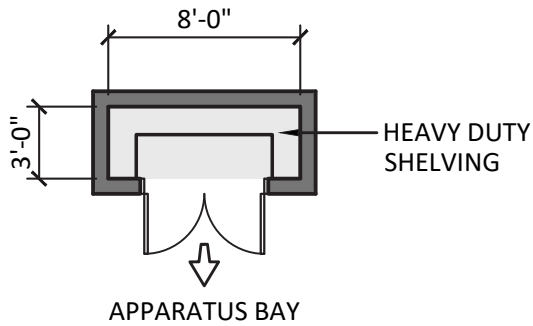
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CITY OF BERKELEY
FIRE HOUSE NO. 7
ENGINE 7, TYPE VI (Cross staffed)

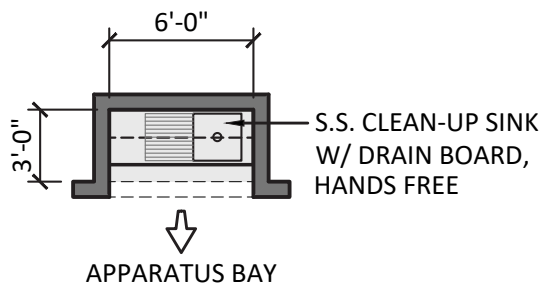


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



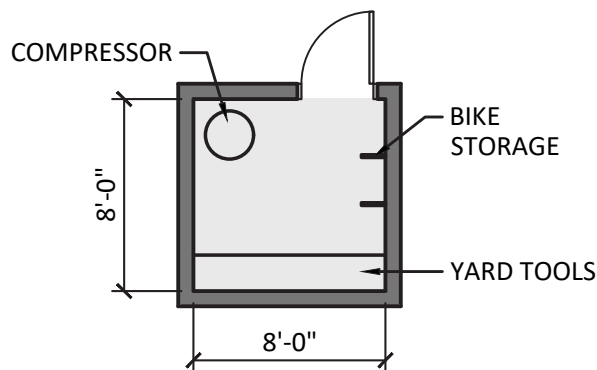
2. MEDICAL SUPPLY CLOSET (24 S.F.)

SCALE: 1/8"=1'-0"



3. CLEAN-UP (18 S.F.)

SCALE: 1/8"=1'-0"

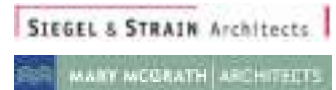


4. EQUIPMENT STORAGE (64 S.F.)

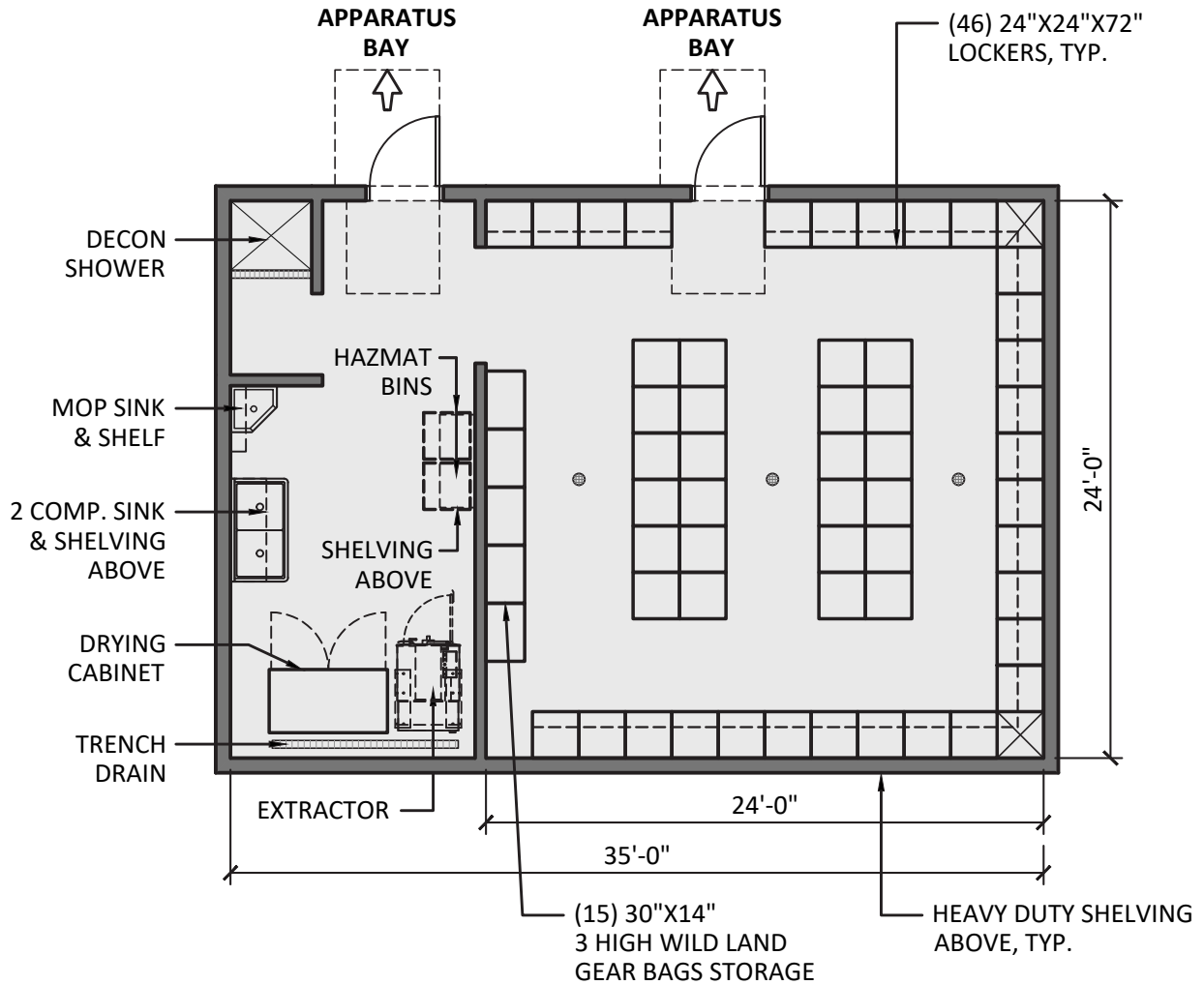
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CITY OF BERKELEY
FIRE HOUSE NO. 7
ENGINE 7, TYPE VI (Cross staffed)

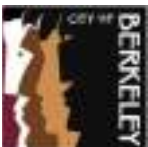


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



5. TURNOUT GEAR ROOM (840 S.F.)

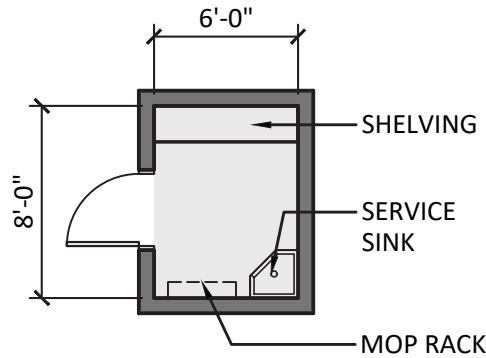
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CITY OF BERKELEY
FIRE HOUSE NO. 7
ENGINE 7, TYPE VI (Cross staffed)

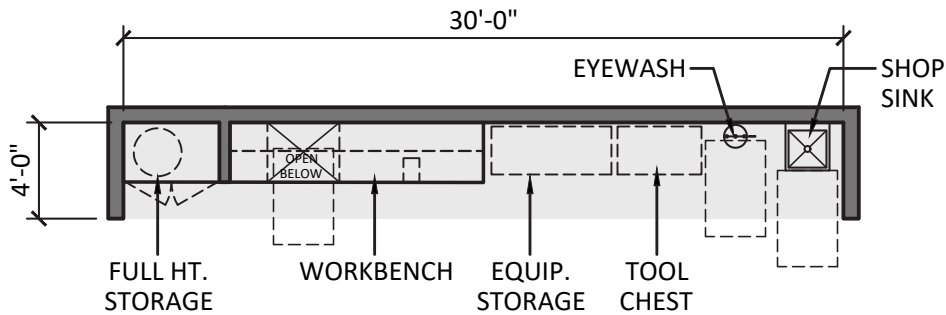


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT



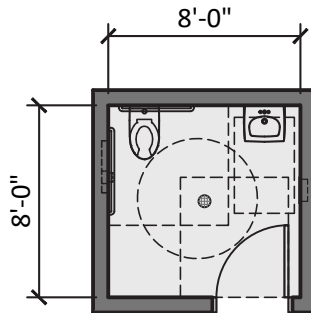
6. JANITOR ROOM (48 S.F.)

SCALE: 1/8"=1'-0"



7. WORKSHOP ALCOVE (120 S.F.)

SCALE: 1/8"=1'-0"

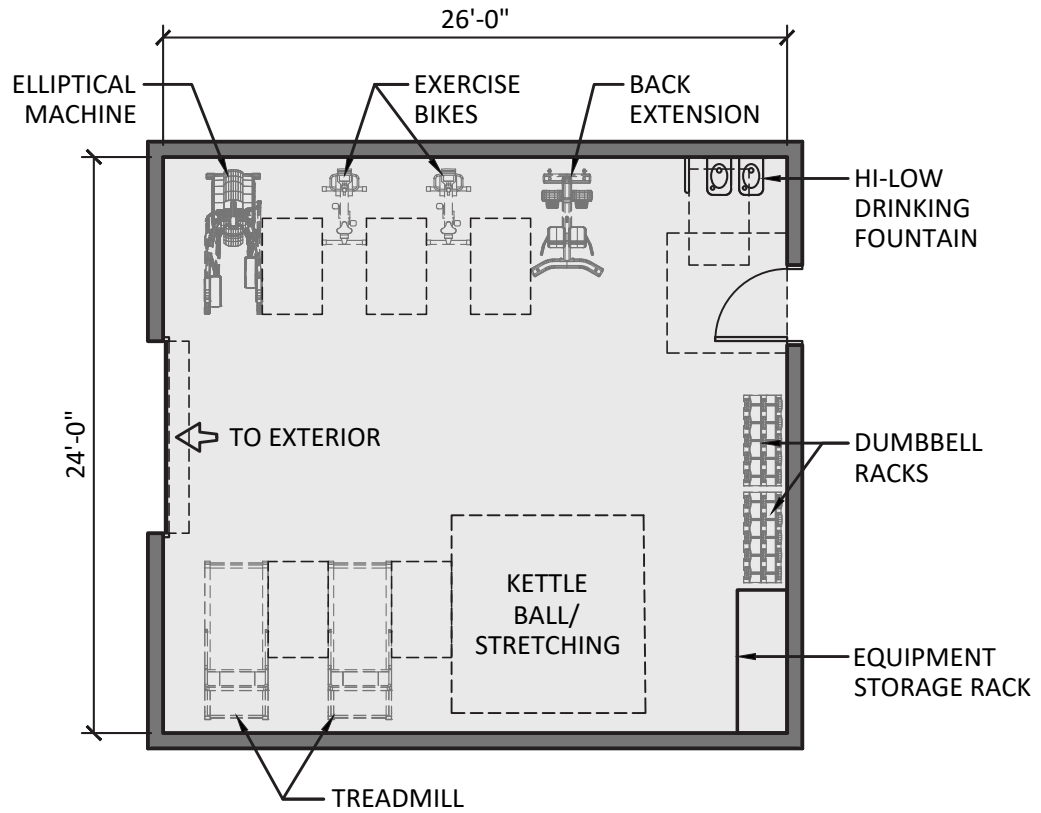


8. FIREFIGHTER RESTROOM (64 S.F.)

SCALE: 1/8"=1'-0"

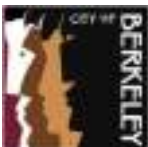


FIRE HOUSE - APPARATUS BAY/APPARATUS BAY SUPPORT

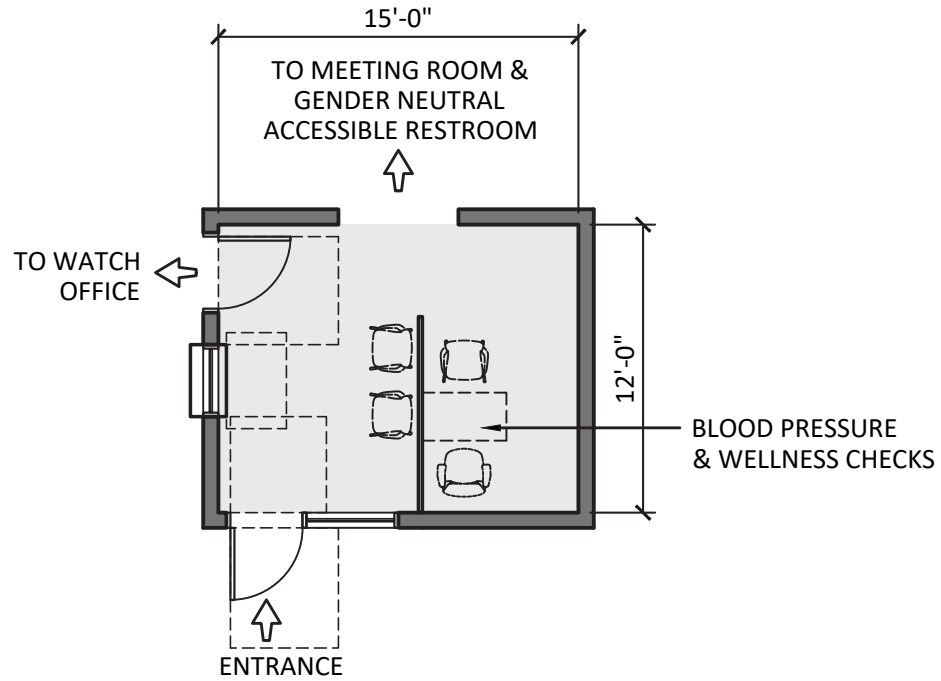


9. FITNESS ROOM (624 S.F.)

SCALE: 1/8"=1'-0"

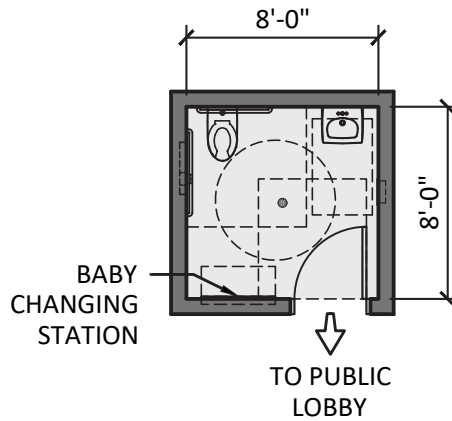


FIRE HOUSE - FIREFIGHTER OFFICES



10. FIRE HOUSE PUBLIC LOBBY (180 S.F.)

SCALE: 1/8"=1'-0"

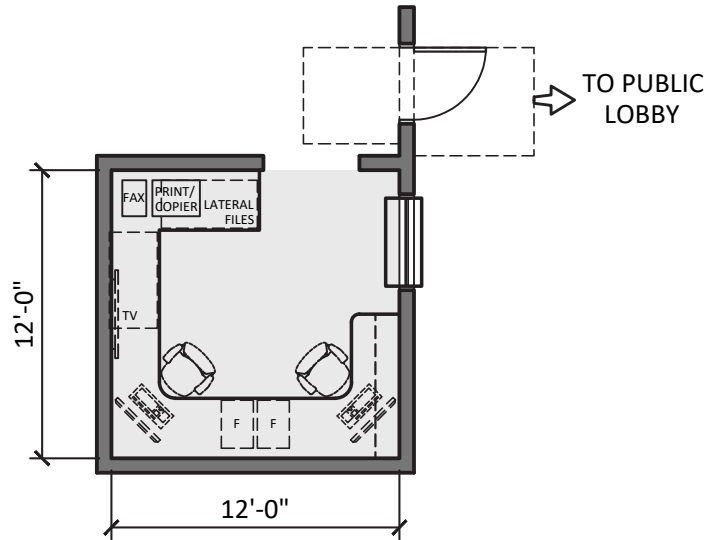


11. FIRE HOUSE PUBLIC RESTROOM (64 S.F.)

SCALE: 1/8"=1'-0"

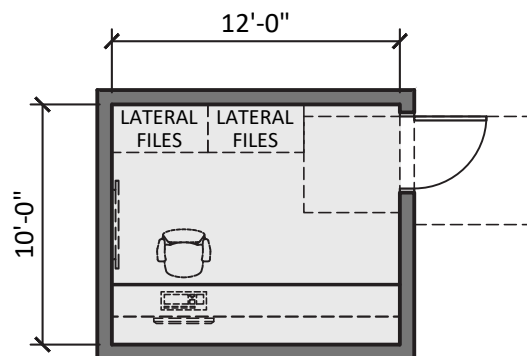


FIRE HOUSE - FIREFIGHTER OFFICES



12. WATCH OFFICE (144 S.F.)

SCALE: 1/8"=1'-0"

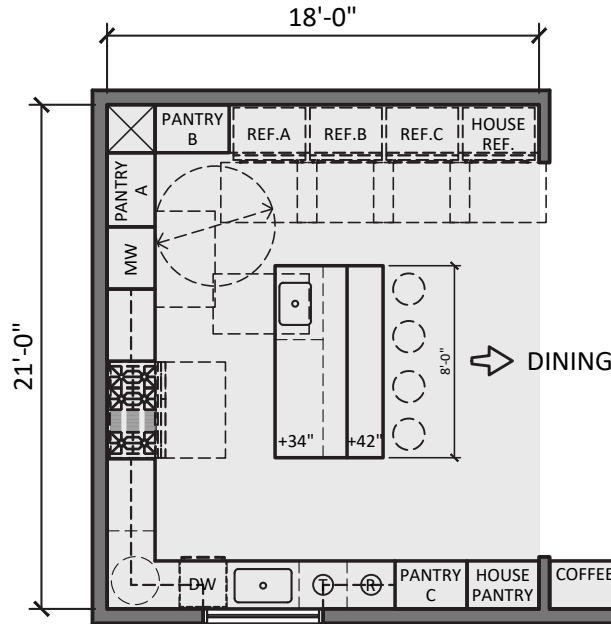


13. CAPTAIN'S OFFICE (120 S.F.)

SCALE: 1/8"=1'-0"

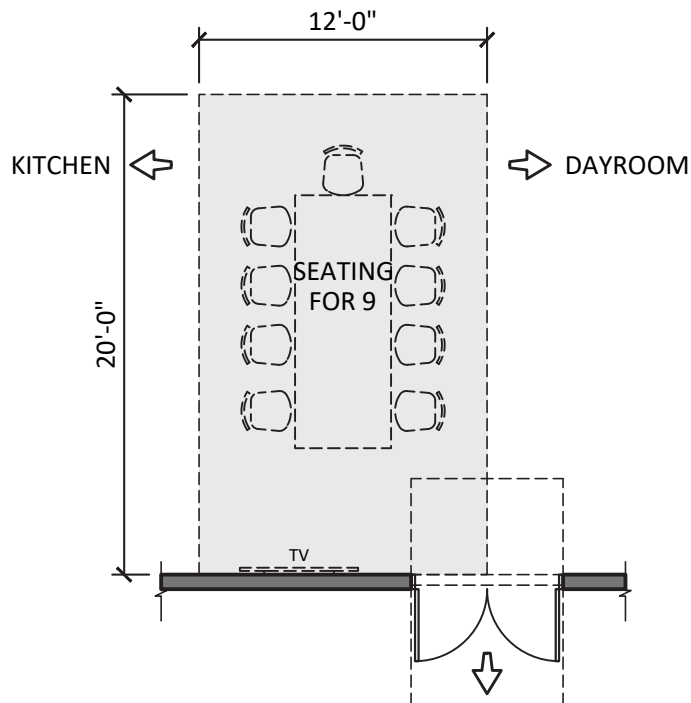


FIRE HOUSE - FIREFIGHTER QUARTERS



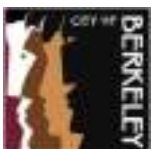
14. KITCHEN (378 S.F.)

SCALE: 1/8"=1'-0"



15. DINING AREA (240 S.F.)

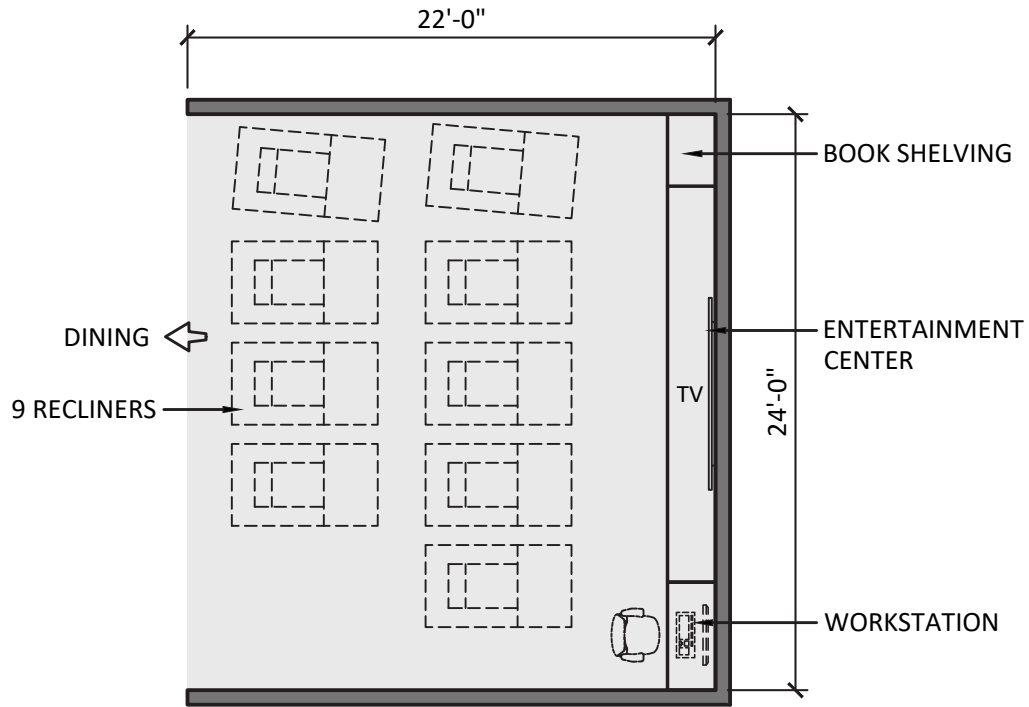
SCALE: 1/8"=1'-0"



CITY OF BERKELEY
FIRE HOUSE NO. 7
 ENGINE 7, TYPE VI (Cross staffed)

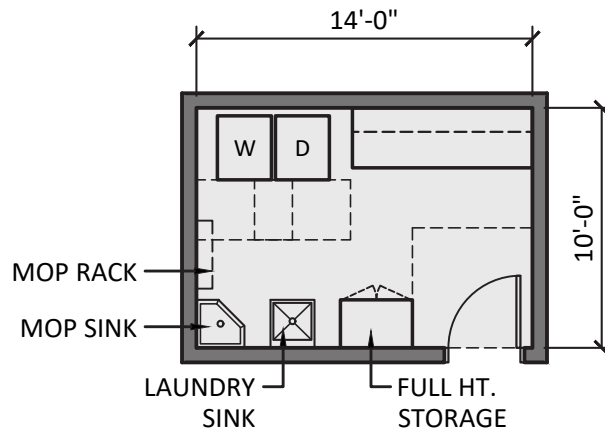


FIRE HOUSE - FIREFIGHTER QUARTERS



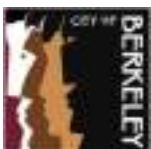
16. DAYROOM (528 S.F.)

SCALE: 1/8"=1'-0"

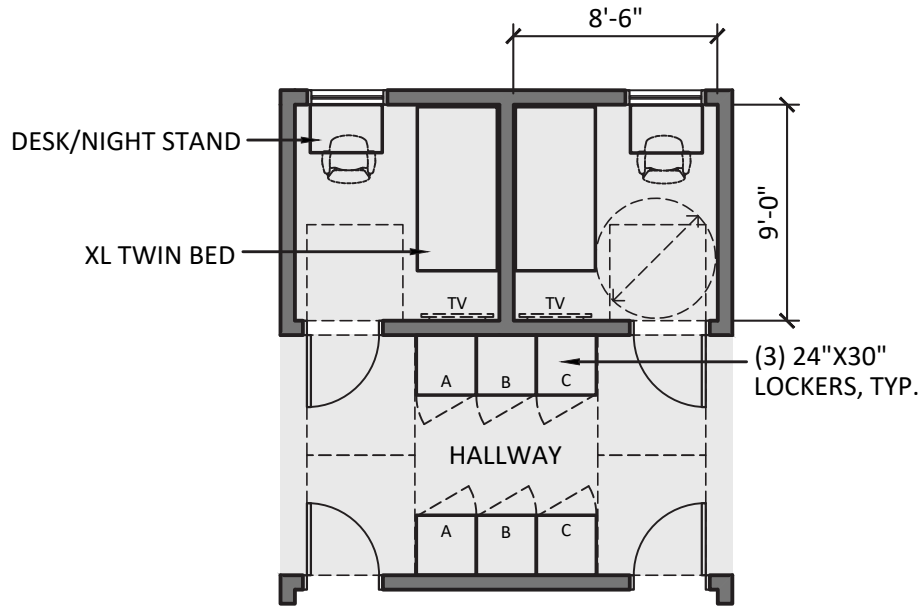


17. LAUNDRY ROOM (140 S.F.)

SCALE: 1/8"=1'-0"

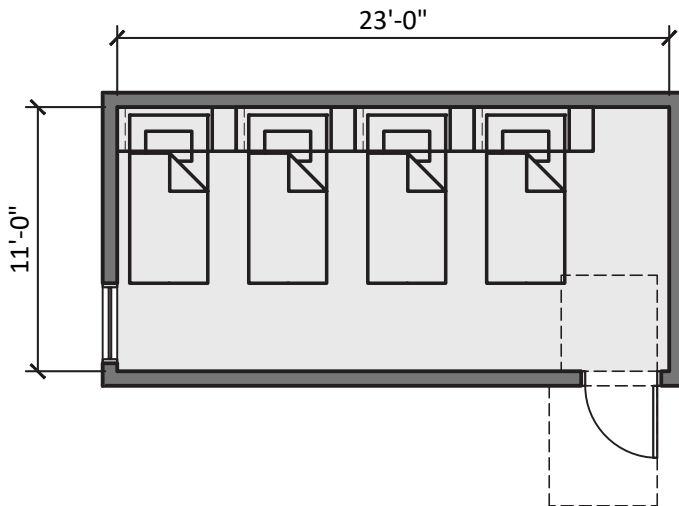


FIRE HOUSE - FIREFIGHTER QUARTERS



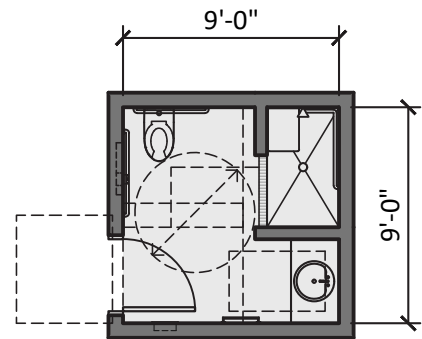
18. FIREFIGHTER BEDROOM - 4 (306 S.F.)

SCALE: 1/8"=1'-0"



19. SURGE UNIT BEDROOM (253 S.F.)

SCALE: 1/8"=1'-0"

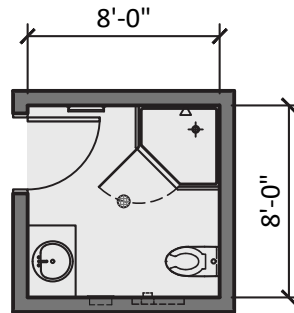


20. FIREFIGHTER BATHROOM - ADA (81 S.F.)

SCALE: 1/8"=1'-0"

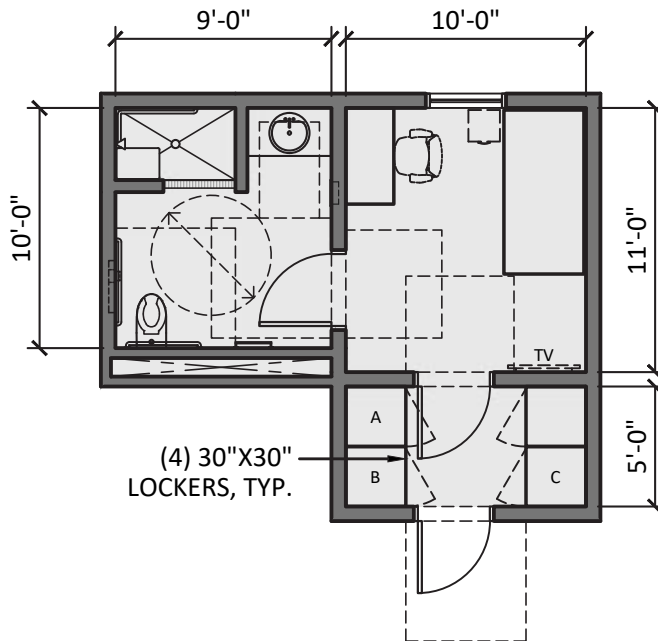


FIRE HOUSE - FIREFIGHTER QUARTERS



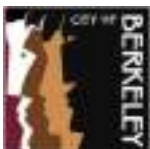
21. FIREFIGHTER BATHROOM - 3 (192 S.F.)

SCALE: 1/8"=1'-0"

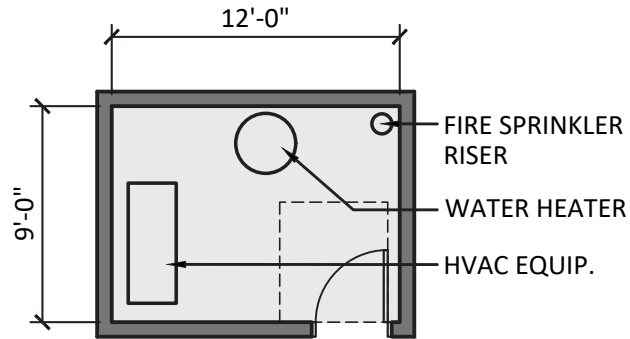


22. CAPTAIN BEDROOM & ACCESSIBLE BATHROOM (250 S.F.)

SCALE: 1/8"=1'-0"

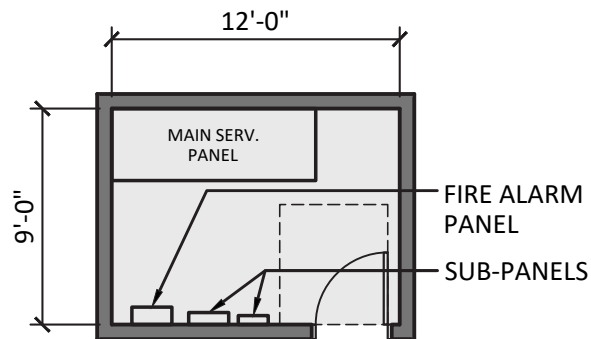


FIRE HOUSE - UTILITY SUPPORT/VERTICAL CIRCULATION



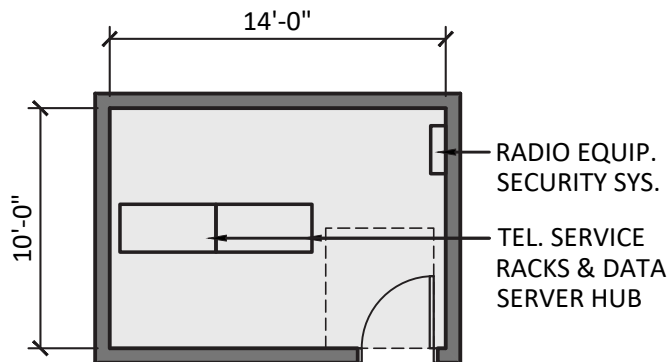
23. MECHANICAL ROOM (108 S.F.)

SCALE: 1/8"=1'-0"



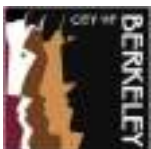
24. ELECTRICAL ROOM (108 S.F.)

SCALE: 1/8"=1'-0"



25. COMMUNICATIONS ROOM (140 S.F.)

SCALE: 1/8"=1'-0"



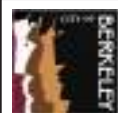
LEGEND:

 EXISTING BUILDING AREA



SITE PLAN DIAGRAM

SCALE: 1/64" = 1'-0"



CITY OF BERKELEY
FIRE SERVICE MASTER PLAN
SITE STUDIES

TITLE:

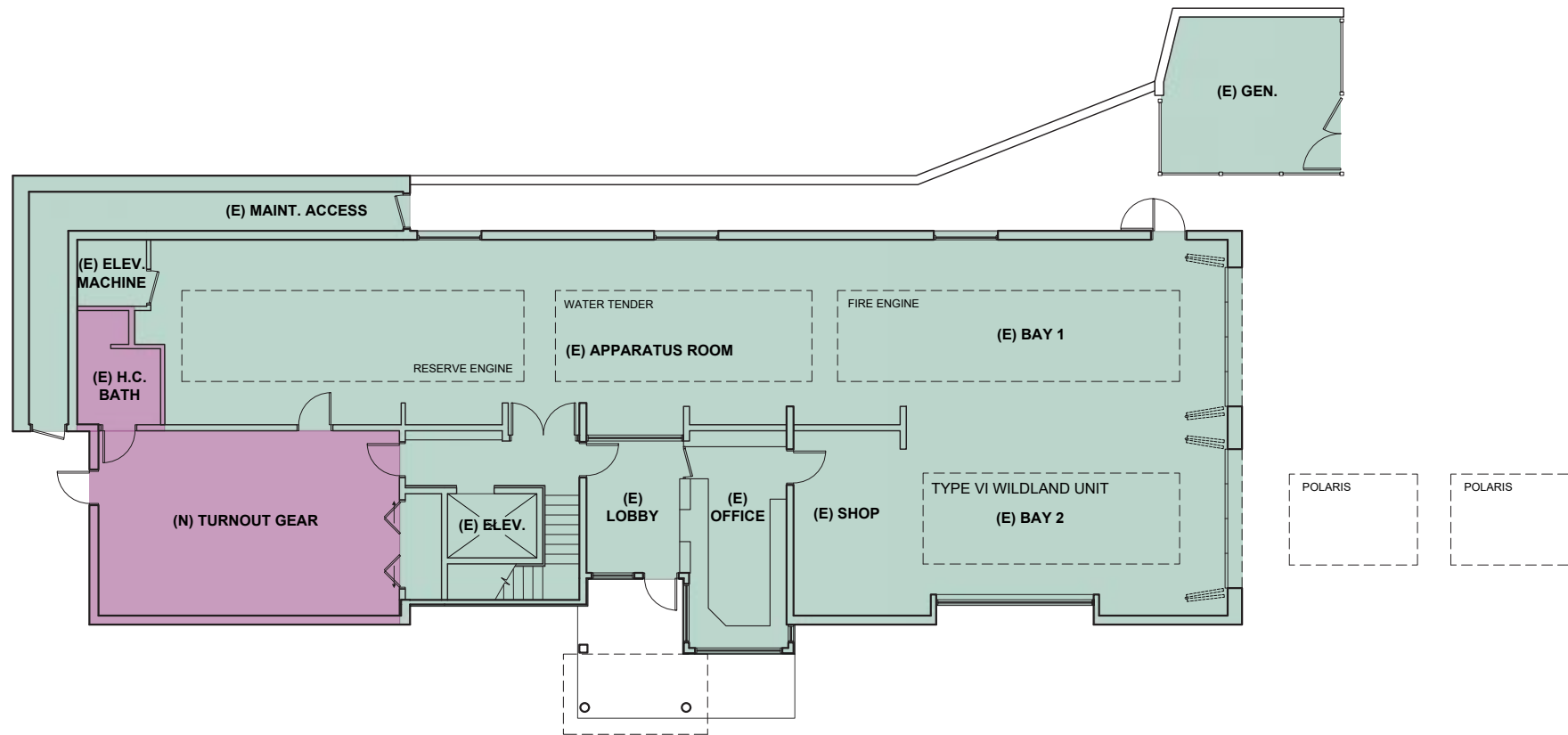
FIRE STATION NO. 7 - SITE PLAN (BUILDING RENOVATION)

3000 SHASTA ROAD, BERKELEY, CA 94708

03.17.2023

SIEGEL & STRAIN Architects
 6201 DOYLE STREET, SUITE B,
 EMERYVILLE, CA 94608
 phone: 510.547.8092 | www.siegelstrain.com

MARY McGRATH ARCHITECTS
 610 16th STREET, SUITE 219, OAKLAND, CA 94612
 phone: 510.208.9400
 www.marymcgratharchitects.com



FIRE STATION NO. 7
2 STORY BUILDING

EXISTING FIRST FLOOR BUILDING AREA: 3,967 S.F.
EXISTING SECOND FLOOR BUILDING AREA: 2,953 S.F.
TOTAL EXISTING BUILDING AREA: 6,920 S.F.

SECOND FLOOR BUILDING AREA EXPANSION: 1,080 S.F.

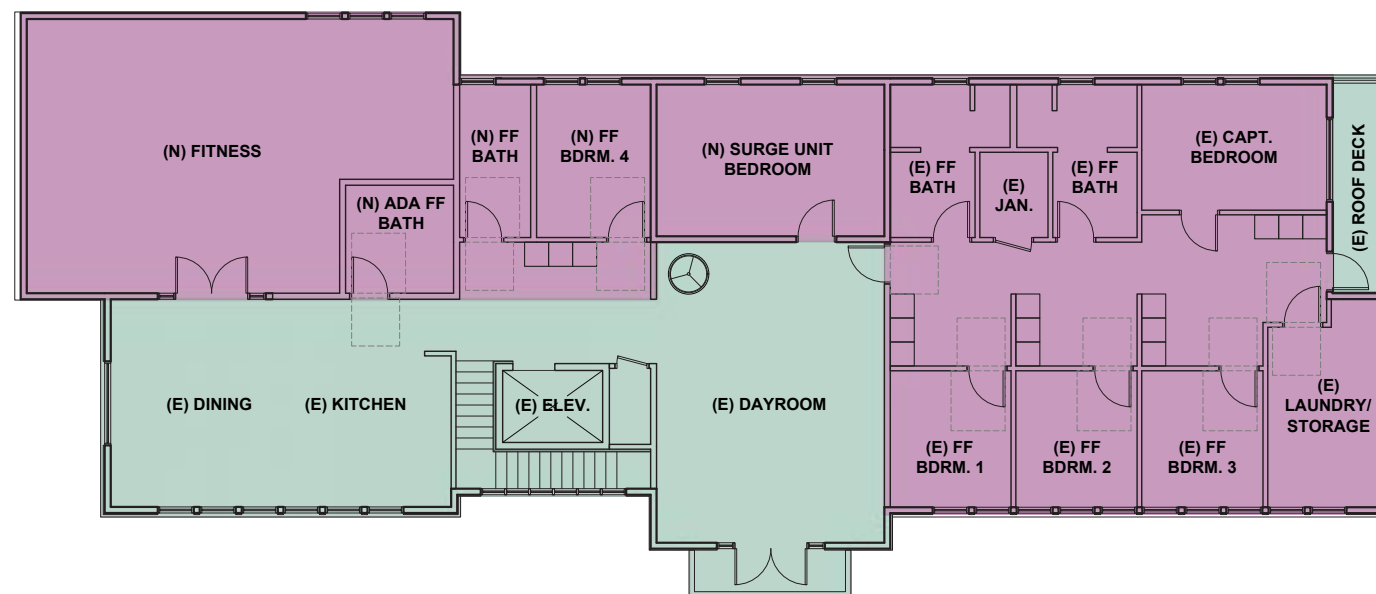
TOTAL BUILDING AREA RENOVATION: 8,000 S.F.

LEGEND:

- EXISTING BUILDING AREA
- RENOVATION AREA

FIRST FLOOR PLAN

SCALE: 1/16" = 1'-0"



SECOND FLOOR PLAN

SCALE: 1/16" = 1'-0"





**HEADQUARTERS,
TRAINING CLASSROOMS &
AMBULANCE DEPLOYMENT CENTER**



CITY OF BERKELEY
FIRE DEPARTMENT HEADQUARTERS
2100 MARTIN LUTHER KING JR. WAY, BERKELEY, CA 94704

DRAFT
MAY 08, 2023

PROJECT DESCRIPTION

The current BFD Headquarters is located within the Public Safety Building in downtown Berkeley. There is not adequate space at this location for all of the current staff nor the proposed additional staff, WUI division, training classrooms, or the proposed ambulance deployment center.

The recommendation is to relocate the headquarters to a city owned building which is large enough to accommodate the administrative offices, training classrooms, and the ambulance deployment center.

The ROM Project Budget for the Recommended Option is \$33-36 not including escalation beyond 2024.



Fire Department Administrative Offices and Training Classrooms Ambulance Deployment Center

CONCEPTUAL SPACE NEEDS OUTLINE

No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
SITE OPERATIONS				
	Staff Parking	40? staff parking spaces	TBD	10'x20' ea.
	Fire Department Vehicles	40? City Vehicle parking spaces	TBD	10'x20' ea.
	Visitor Parking	4 Total - One Accessible with ramp	1,000	10' x 20
	Generator Area	Located at rear yard	150	10'x15'
	Trash Enclosure	Exterior access for service; space for dumpster and recycling bins	150	10'x15'
	Flagpole	Flagpole area with lighting	25	5'x5'
	Outdoor Patio	Outdoor uses; adjacent to Staff Breakroom	200	10'x20'

Fire Department Administrative Offices and Training Classrooms				
No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
OFFICE OF THE CHIEF, OPERATIONS and SUPPORT SERVICES				
A1	Fire Chief Office	Private office, lateral file cabinets, meeting table for 4, shelving	256	16' x 16'
A2	Communications Specialist	Private office, lateral file cabinets, shelving	143	11' x 13'
A3	Project Manager	Private Office	132	11' x 12'
A4	Confidential Secretary	Private office, lateral file cabinets, shelving	132	11' x 12'
A5	Deputy Fire Chief Operations Office	Private office, lateral file cabinets, meeting over desk, shelving	156	12' x 13'
A6	Administrative Assistance (2)	Open work stations	160	8' x 10' (2)
A7	Deputy Fire Chief Support Services	Private office, lateral file cabinets, meeting over desk, shelving	156	12' x 13'
A8	Assistant Fire Chief Support Services	Private office, lateral file cabinets, meeting over desk, shelving	156	12' x 13'
A9	Assistant Mgmt. Analyst (2)	Private office, lateral file cabinets, shelving	264	11' x 12' (2)
A10	Small Conference	Seating for 6-8; white board	180	15' x 12'
OFFICE OF THE CHIEF, OPERATIONS, SUPPORT SERVICES Work Area Subtotal			1,735	

Training Division				
No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
T1	Training Assistant Chief	Private office, lateral file cabinets, meeting over desk, shelving	156	12' x 13'
T2	Training Admin.	Open work station	80	8' x 10'
T3	Training Specialist	Private Office	132	11' x 12'
T4	Training Officer (2)	Private office, lateral file cabinets, shelving	264	11' x 12' (2)
T5	Training Support (Interns and RTO) (4)	Touch down work stations adjacent to plan WUI Captain	144	6' x 6' (4)
T6	Administrative Assistance (2)	Open work stations	160	8' x 10' (2)
T7	Human Performance Coaches Strength and Rehab (2)	Private office with area for training table.	336	12' x 14' (2)
T8	Human Performance Coaches (Nutrition and Behavior)	Private office with area for training table.	336	12' x 14' (2)
T9	Small Conference	Seating for 6-8; white board	180	15' x 12'
TRAINING DIVISION Area Subtotal			1,788	

Fire Department Administrative Offices and Training Classrooms				
No.	Type of Space	Space Attributes	Program	Size
ADMINISTRATION AND FISCAL			Program	Size
F1	Admin & fiscal Service Manager	Private office with plan layout desk, lateral file cabinets, shelving	143	11' x 13'
F2	Associate Mgmt. Analyst (2)	Private office, lateral file cabinets, shelving	264	11' x 12' (2)
F3	Accounting Office Spec. III (four positions)	Open work stations, lateral file cabinets, shelving, adjacent to copy, file, supply room	320	8' x 10' (4)
F4	Office Specialist II (2)	Open work stations, lateral file cabinets, shelving, adjacent to copy, file, supply room	160	8' x 10' (2)
F5	Budget Associate Management Analyst	Open work stations, lateral file cabinets, shelving, adjacent to copy, file, supply room	80	8' x 10' (1)
F6	Small Conference	Seating for 6-8; white board	180	15' x 12'
ADMINISTRATION AND FISCAL Area Subtotal			1,147	

EMS			Program	Size
EMS1	EMS Assistant Fire Chief	Private office, lateral file cabinets, shelving	143	11' x 13'
EMS2	EMS Captains (2)	Shared Private Office with two desks	156	12' x 13'
EMS3	EMS Quality Improvement	Private office, lateral file cabinets, shelving	143	11' x 13'
EMS4	EMS Open work Area 95 positions) EMS Admin. Assistant EMS CQI EMS Recruitment/Academy Interns (2)	Open work stations adjacent to lobby, lateral file cabinets, shelving, adjacent to copy, file, supply room	400	8' x 10' (5)
Fire Department EMS Work Area Subtotal			842	

Emergency Management			Program	Size
EM1	Emergency Manager Program Manager II	Private office with meeting space over desk, lateral file cabinets, shelving	143	11' x 13'
EM2	Emergency Services Coordinator Open work Area (3 positions)	Open work stations, lateral file cabinets, shelving, adjacent to copy, file, supply room	240	8' x 10' (3)
EM3	Emergency Planning Support (interns 2)	Open work stations, lateral file cabinets, shelving, adjacent to copy, file, supply room	160	8' x 10' (2)
Fire Department Emergency Management Work Area Subtotal			543	

Fire Prevention			Program	Size
FP1	Fire Marshal	Private office with meeting space over desk, lateral file cabinets, shelving	143	11' x 13'
FP2	Assistant Mgmt. Analyst	Private office, lateral file cabinets, shelving	132	11' x 12'
FP3	Deputy Fire Marshal	Private office with meeting space over desk. Layout out space for plan review.	143	11' x 13'
FP4	Fire Prevention Open Work Area Plans Review (Two Positions)	Open Work Area adjacent to Fire Marshall ; two work stations and work counter for plan layout, storage area for inactive files.	200	10' x 10' (2)
FP5	Inspector Open work Area (Five positions)	Open works station with area for plan layout	400	8' x 10' (5)
FP6	Light Duty Work Stations (2)	Open works station with area for plan layout	160	8' x 10' (2)
FP7	Library and Storage - Archives	Full-height shelving	100	10' x 10'
FP8	Small Conference	seating for 6-8; white board	180	15' x 12'
Fire Prevention Work Area Subtotal			1,458	

Fire Department Administrative Offices and Training Classrooms				
No.	Type of Space	Space Attributes	Program	Size
Wildland Division (WUI)			Program	Size
WD1	Assistant Chief	Private office with meeting space over desk, lateral file cabinets, shelving	143	11' x 13'
WD2	Office Specialist	Open work station, lateral file cabinets, shelving, adjacent to copy, file, supply room	80	8' x 10' (1)
WD3	WUI Captain	Open work station, lateral file cabinets, shelving, adjacent to copy, file, supply room	80	8' x 10' (1)
WD4	Vegetation Management	Open work station, lateral file cabinets, shelving, adjacent to copy, file, supply room	80	8' x 10' (1)
WD5	Inspector Open work Area (Three positions)	Touch down work stations adjacent to plan WUI Captain	108	6' x 6' (3)
WD6	Field Coordinator/Inspection education/Interns (6 TD)	Touch down work stations adjacent to plan WUI Captain	216	6' x 6' (6)
Wildland Division Work Area Subtotal			707	
Shared and Support Spaces			Program	Size
S1	Public Entry Lobby	Interior space for visitor seating; Reception counter, adjacent to small conference room	168	12' x 14'
S2	Historic Display	Interior lobby space for the display of BFD Historic artifacts	168	12' x 14'
S3	Public Restroom	ADA Accessible restrooms adjacent to Lobby, 2 Gender Neutral	128	8' x 8' x 2
S4	Admin Workroom/Storage	full-height shelving, open area for copy machine, central work counter for report assembly, storage for office supplies, form storage, mail box for each station and admin. personnel	224	14'x16'
S5	Large Conference Room	seating for 20-24; storage cabinets, counter space, white board, Adjacent to Lobby	900	30' x 30'
S6	Small Conference	seating for 6-8; white board (adjacent to Lobby)	180	15' x 12'
S7	Admin. Break Room	seating for 8; kitchenette, vending	224	14'x16'
S8	Staff Restroom/locker Room	ADA Accessible restroom adjacent to break room. 6- 36" high lockers. One restroom/locker room each for men and women.	384	12' x 16' (2)
S9	Fitness Room	Space for 5-6 people to work out at one time.	1,200	30' x 40'
S10	Admin. Janitors Room	Storage for cleaning supplies, vacuum, mop sink with mop rack, mop bucket, paper goods,	48	6' x 8'
S11	General Storage - Supply	Full-height shelving. Public Ed. Storage	64	8' x 8'
S12	Admin File Storage	File cabinets (locking)	108	9' x 12'
S13	General Building Storage	Storage for building supplies such as light bulbs, extra paint, ceiling tiles, etc.)	48	6' x 8'
Fire Department Shared and Support Spaces Subtotal			3,676	

Fire Department Administrative Offices and Training Classrooms				
No.	Type of Space	Space Attributes		
EOC/Training Classroom				
No.	Type of Space	Space Attributes		
E1	Main Classroom	Seating for 60; storage areas; counters	2,208	46' x 48'
E2	Equipment Storage	shelving for equipment	180	12' x 15'
E3	Table and Chair Storage	Table and Chair storage	192	12' x 16'
E4	Secondary Classroom	seating for 24-30	768	24' x 32'
Training Classroom Subtotal:			3,348	
UTILITY SUPPORT SPACE				
			Program	Size
U1	Mechanical Room	HVAC equipment; hot water heater; fire sprinkler riser.	160	8' x 10' (2)
U2	Electrical Room	Main service panel, fire alarm panel; sub panels	192	12' x 16'
U3	Communications Room	Telephone service racks, alert response system hub, data server hub, radio equipment; security system	192	12' x 16'
Utility Support Subtotal			544	
Headquarters Space Needs Summary			Program	
Fire Department Administrative Work Area Subtotal			1,735	
Training Division Subtotal			1,788	
Fire Department Finance Work Area Subtotal			1,147	
Fire Department EMS Work Area Subtotal			842	
Fire Department Emergency Management Work Area Subtotal			543	
Fire Prevention Work Area Subtotal			1,458	
Wildland Division Work Area Subtotal			707	
Fire Department Shared and Support Spaces Subtotal			3,676	
EOC and Training Classrooms			3,348	
Utility Support Subtotal			544	
Headquarters Subtotal:			15,788	
Circulation at 30%			4,736	
Headquarters Subtotal (SF):			20,524	
Ambulance Deployment Center Subtotal (SF): (See attached spreadsheet)			8,324	
Sub total:			28,848	Net SF
Grossing Factor: 15%			4,327	
Grand Total HQ, Training Classrooms and Deployment Center:			33,176	

Ambulance Deployment Center
2 Paramedics, 8 EMTs, (12 and 10 hour shifts)
Located at HQ

CONCEPTUAL SPACE NEEDS OUTLINE

Deployment Center Staffing	Current	Future
One ALS Unit	2	0
Four BLS Units	8	0
Ambulance - Reserve	0	0
TOTAL CURRENT AND PLANNED STAFFING:	10	0

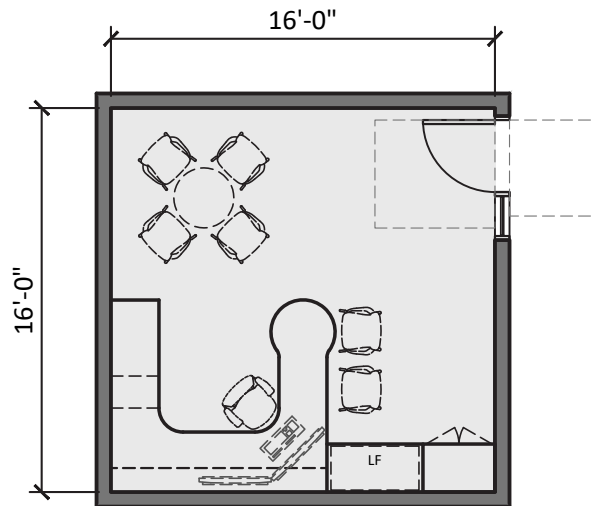
No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
SITE OPERATIONS				
	Firefighter Parking	24 firefighter parking spaces, secure and separate from public parking	4,800	10'x20' ea.
	Generator Area	Located at rear yard	150	10'x15'
	Outdoor Patio or Deck	Outdoor uses; adjacent to Kitchen	200	10'x20'

No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
Ambulance Deployment Center - APP BAY/APP BAY SUPPORT				
1	Parking for five Ambulances	Five Ambulances . Bay size for five units. Need power to each unit.	2,400	(5) 16' x 30'
2	Medical Supply Closet	Heavy Duty Shelving; medical supplies off of apparatus bay.	160	10' x 16'
3	Medical Clean Up	Clean-up sink, shelving, Alcove in bay or near units at entry	18	3' x 6'
4	Janitor Room	Service sink, mop rack; janitorial supplies;	48	6' x 8'
5	Medical Equipment Storage and Charging	Heavy Duty Shelving Equipment Charging location	64	8' x 8'
6	Restroom	Medic/EMS toilet and sink, off of apparatus bay	64	8' x 8'
7	Fitness Room	Work out area with cardio and other equipment. Share with HQ.	576	24' x 24'
Deployment Center - App Bay/Support Subtotal			2,754	

No.	Type of Space	Space Attributes	Square Footage	
			Program	Size
Deployment Center Staging Area				
8	Kitchenette	Kitchen with two refrigerators, sink, dishwasher and 2 microwaves and space for ice machine. Share with HQ.	192	12' x 16'
9	Dining Area	Seating for 10 persons; wall-mounted TV; open to kitchen; Share with HQ	168	14' x 12'
10	Laundry Room	Service sink; countertop; janitorial supplies; mop rack, Washer/Dryer, Extractor and TO Dryer, SCBA Washer	240	12' x 20'
11	Locker Area	44-36" high lockers, double stacked in open room. 18" wide x 2' deep.	360	18' x 20'
12	Gender Neutral Bathroom/Shower ADA	1 accessible restroom with shower, sink, toilet	81	9' x 9'
13	Gender Neutral Bathrooms	2 restrooms with sink, toilet	128	8' x 8' (2)
14	Changing Rooms	10 private changing rooms	480	6' x 8' (10)
Deployment Center - Staging Area Subtotal			1,649	

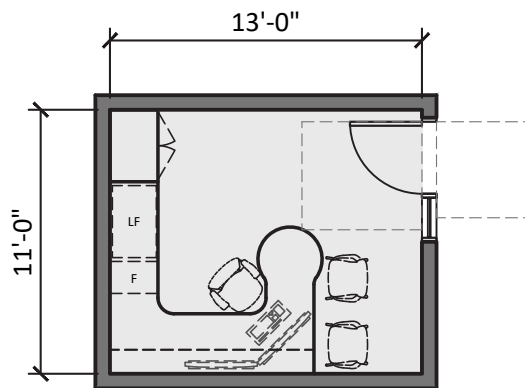
Ambulance Deployment Center:		Program	
	App Bay/Bay Support Subtotal	2,754	
	Staging Area Subtotal	1,649	
	Utility Support Subtotal	2,000	
	BUILDING SUBTOTAL (SF)	6,403	
	Circulation at 30%	1,921	
Ambulance Deployment Center: GRAND TOTAL (SF)		8,324	

OFFICE OF THE CHIEF, OPERATIONS AND SUPPORT SERVICES



A1 FIRE CHIEF OFFICE (256 S.F.)

SCALE: 1/8"=1'-0"

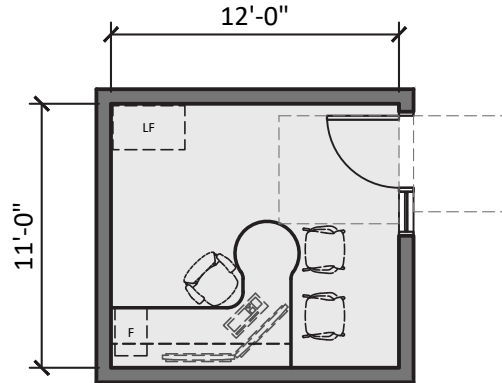


A2 COMMUNICATIONS SPECIALIST (143 S.F.)

SCALE: 1/8"=1'-0"



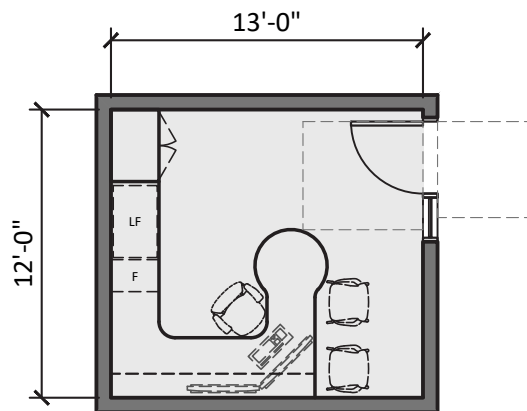
OFFICE OF THE CHIEF, OPERATIONS AND SUPPORT SERVICES



A3 PROJECT MANAGER (132 S.F.)

A4 CONFIDENTIAL SECRETARY (132 S.F.)

SCALE: 1/8"=1'-0"

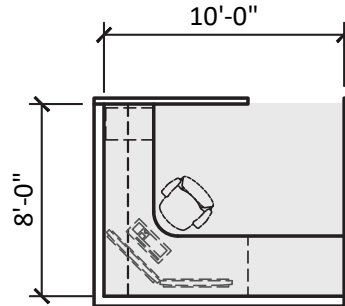


A5 DEPUTY FIRE CHIEF OPERATIONS OFFICE (156 S.F.)

SCALE: 1/8"=1'-0"

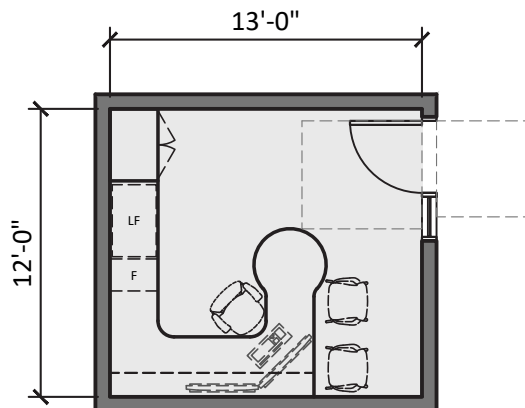


OFFICE OF THE CHIEF, OPERATIONS AND SUPPORT SERVICES



A6 ADMINISTRATIVE ASSISTANCE - 2 (160 S.F.)

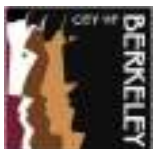
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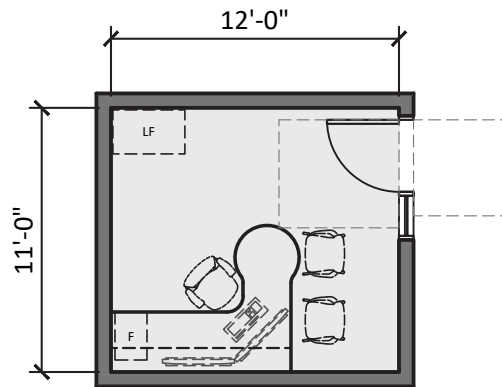
A7 DEPUTY FIRE CHIEF SUPPORT SERVICES (156 S.F.)

A8 ASSISTANT FIRE CHIEF SUPPORT SERVICES (156 S.F.)

SCALE: 1/8"=1'-0"

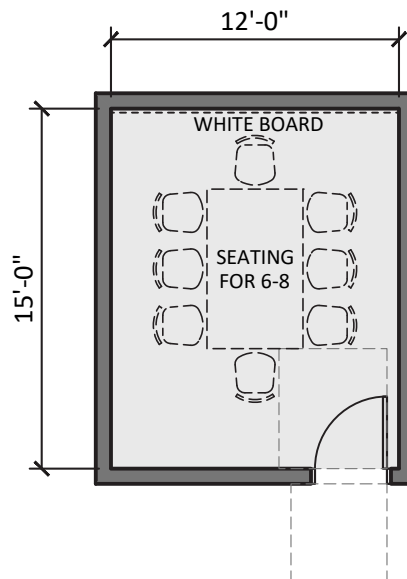


OFFICE OF THE CHIEF, OPERATIONS AND SUPPORT SERVICES



A9 ASSISTANT MGMT. ANALYST - 2 (264 S.F.)

SCALE: 1/8"=1'-0"

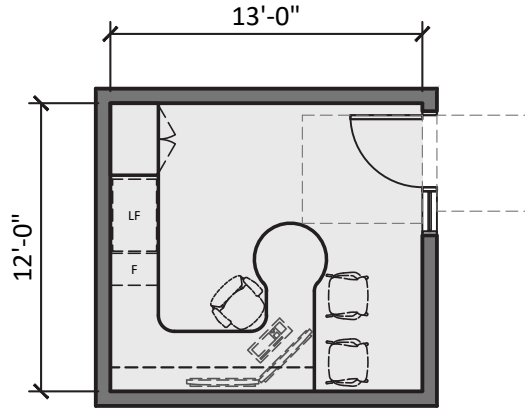


A10 SMALL CONFERENCE (180 S.F.)

SCALE: 1/8"=1'-0"

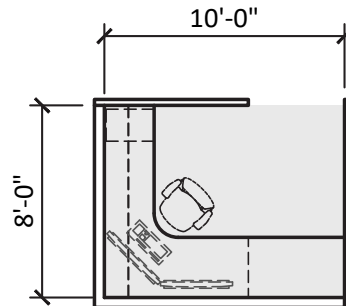


TRAINING DIVISION



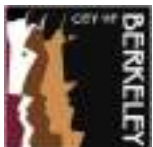
T1 TRAINING ASSISTANT CHIEF (156 S.F.)

SCALE: 1/8"=1'-0"

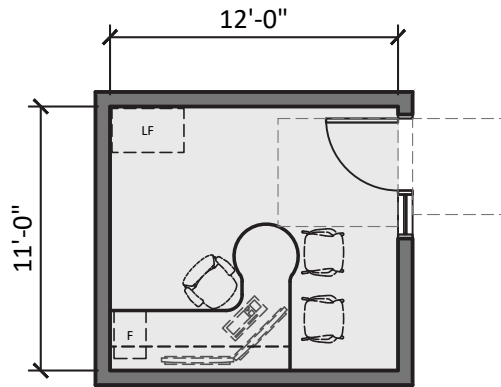


T2 TRAINING ADMIN. (80 S.F.)

SCALE: 1/8"=1'-0"



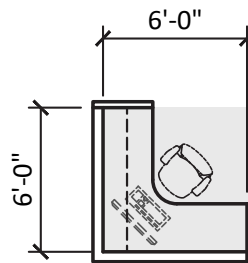
TRAINING DIVISION



T3 TRAINING SPECIALIST (132 S.F.)

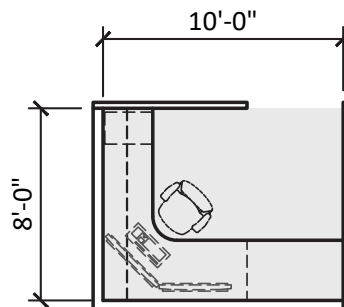
T4 TRAINING OFFICER - 2 (264 S.F.)

SCALE: 1/8"=1'-0"



T5 TRAINING SUPPORT (INTERNS AND RTO - 4) (144 S.F.)

SCALE: 1/8"=1'-0"

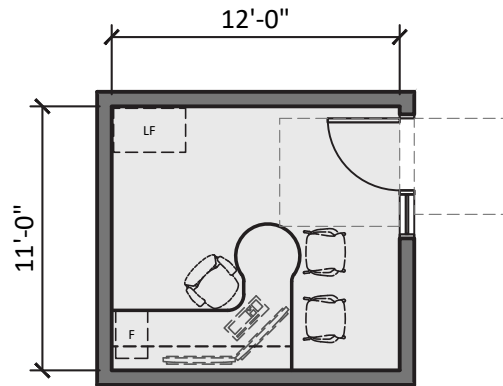


T6 ADMINISTRATIVE ASSISTANCE - 2 (160 S.F.)

SCALE: 1/8"=1'-0"



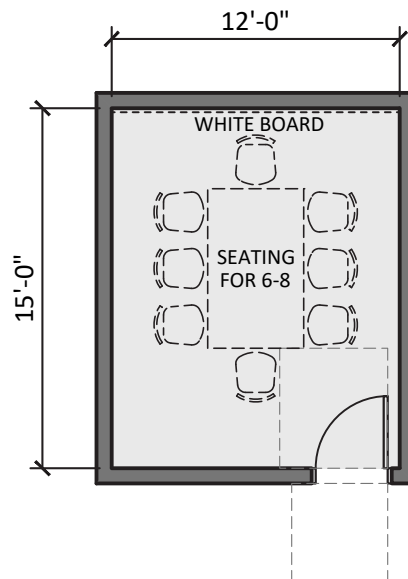
TRAINING DIVISION



T7 HUMAN PERFORMANCE COACHES (STRENGTH AND REHAB - 2 (336 S.F.)

T8 HUMAN PERFORMANCE COACHES (NUTRITION AND BEHAVIOR - 2 (336 S.F.)

SCALE: 1/8"=1'-0"

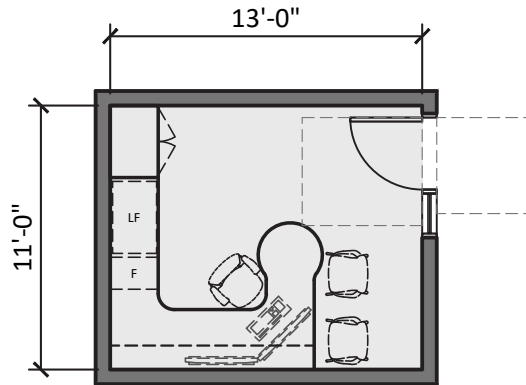


T9 SMALL CONFERENCE (180 S.F.)

SCALE: 1/8"=1'-0"

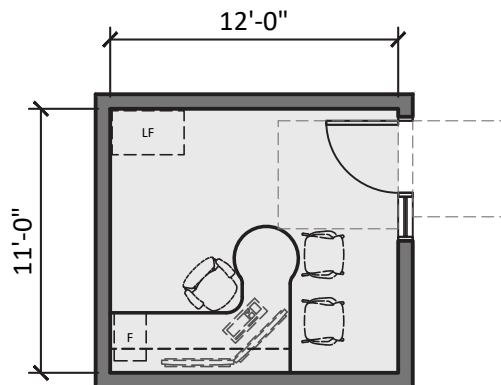


ADMINISTRATION AND FISCAL



F1 ADMIN. & FISCAL SERVICE MANAGER (143 S.F.)

SCALE: 1/8"=1'-0"

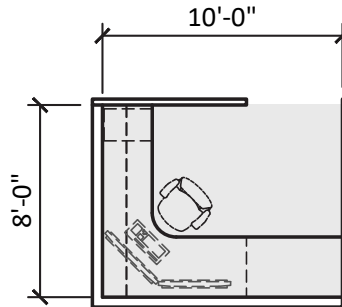


FP2 ASSOCIATE MGMT. ANALYST - 2 (264 S.F.)

SCALE: 1/8"=1'-0"



ADMINISTRATION AND FISCAL

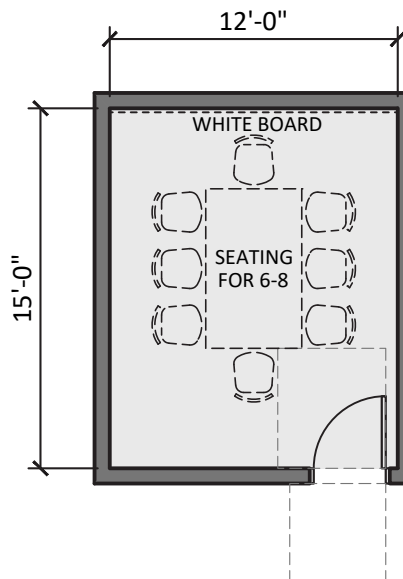


F3 ACCOUNTING OFFICE SPEC. III - 4 POSITIONS (320 S.F.)

F4 OFFICE SPECIALIST II - 2 (160 S.F.)

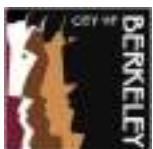
F5 BUDGET ASSOCIATE MANAGEMENT ANALYST (80 S.F.)

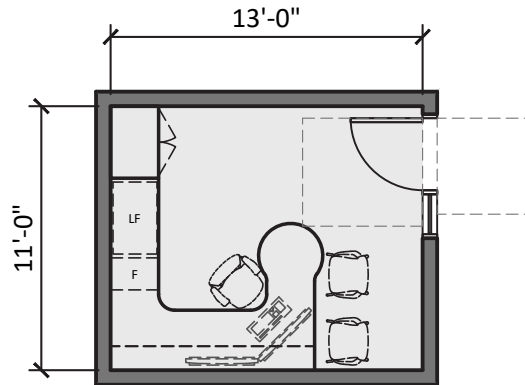
SCALE: 1/8"=1'-0"



F6 SMALL CONFERENCE (180 S.F.)

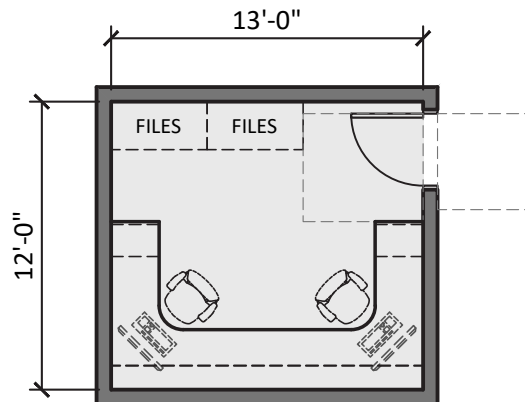
SCALE: 1/8"=1'-0"





EMS1 EMS ASSISTANT FIRE CHIEF (143 S.F.)

SCALE: 1/8"=1'-0"

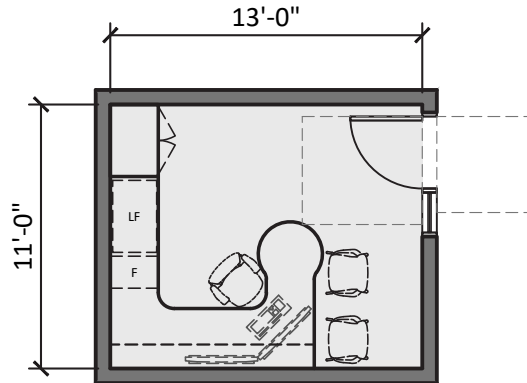


EMS2 EMS CAPTAINS (156 S.F.)

SCALE: 1/8"=1'-0"

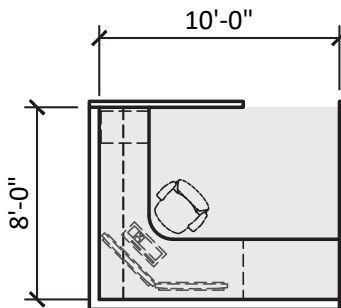


EMERGENCY MANAGEMENT



EMS3 EMS QUALITY IMPROVEMENT (143 S.F.)

SCALE: 1/8"=1'-0"



EMS4 EMS OPEN WORK AREA (95 POSITIONS)

EMS ADMIN. ASSISTANT

EMS CQI

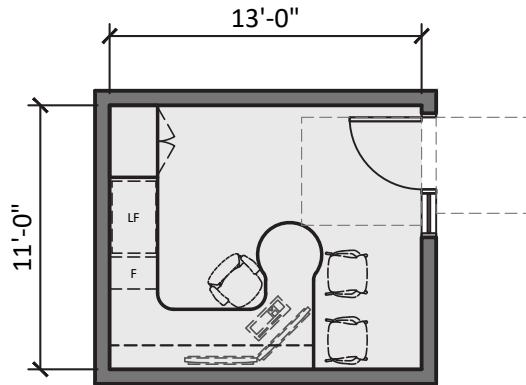
EMS RECRUITMENT/ACADEMY INTERNS - 2

(8'X10') (5) 400 S.F.

SCALE: 1/8"=1'-0"

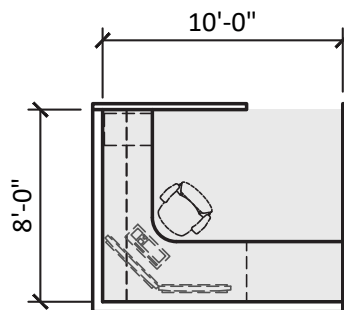


EMERGENCY MANAGEMENT



EM1 EMERGENCY MANAGER PROGRAM MANAGER II (143 S.F.)

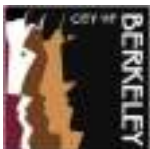
SCALE: 1/8"=1'-0"



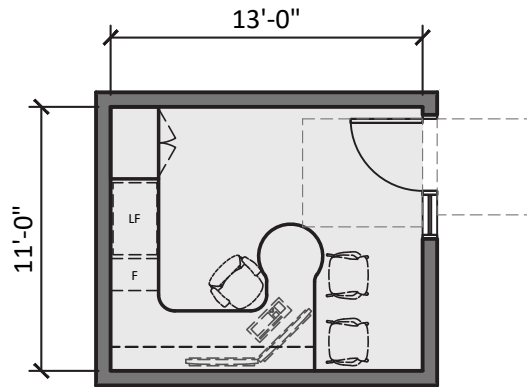
EM2 EMERGENCY SERVICES COORDINATOR OPEN WORK AREA - 3 POSITIONS (240 S.F.)

EM3 EMERGENCY PLANNING SUPPORT - 2 INTERNS (160 S.F.)

SCALE: 1/8"=1'-0"

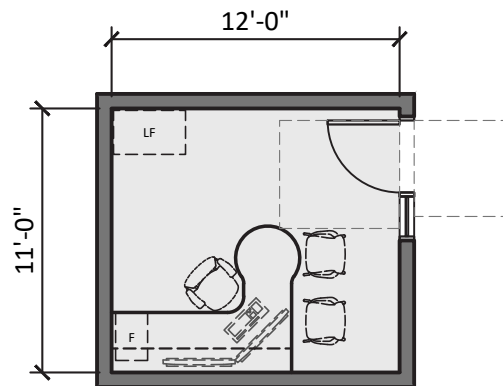


FIRE PREVENTION



FP1 FIRE MARSHAL (143 S.F.)

SCALE: 1/8"=1'-0"

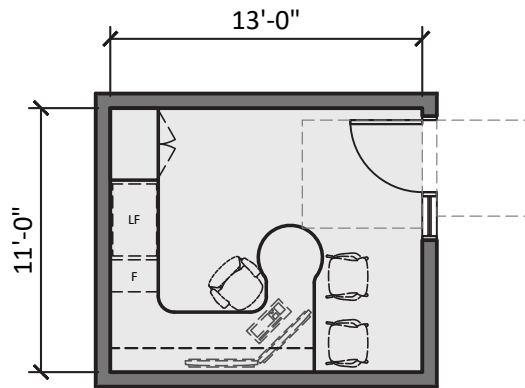


FP2 ASSISTANT MGMT. ANALYST (132 S.F.)

SCALE: 1/8"=1'-0"

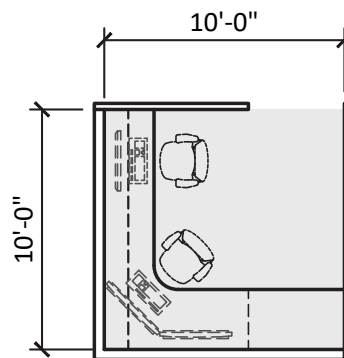


FIRE PREVENTION



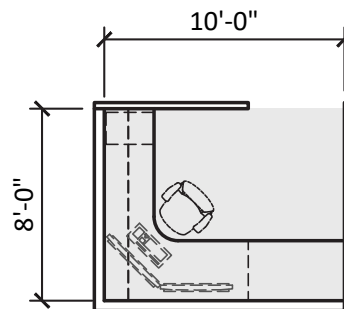
FP3 DEPUTY FIRE MARSHAL (143 S.F.)

SCALE: 1/8"=1'-0"



FP4 FIRE PREVENTION OPEN WORK AREA - TWO POSITIONS (200 S.F.)

SCALE: 1/8"=1'-0"

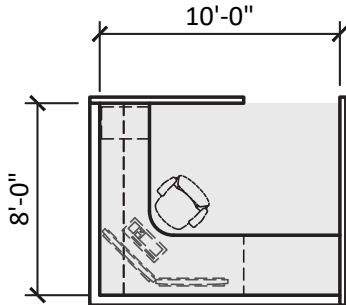


FP5 INSPECTOR OPEN WORK AREA - FIVE POSITIONS (400 S.F.)

SCALE: 1/8"=1'-0"

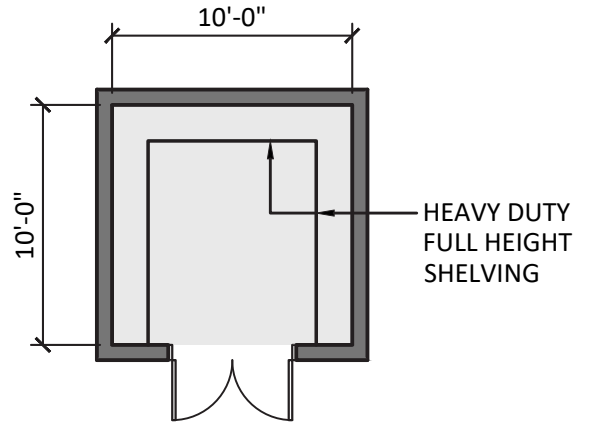


FIRE PREVENTION



FP6 LIGHT DUTY WORKSTATIONS - 2 (160 S.F.)

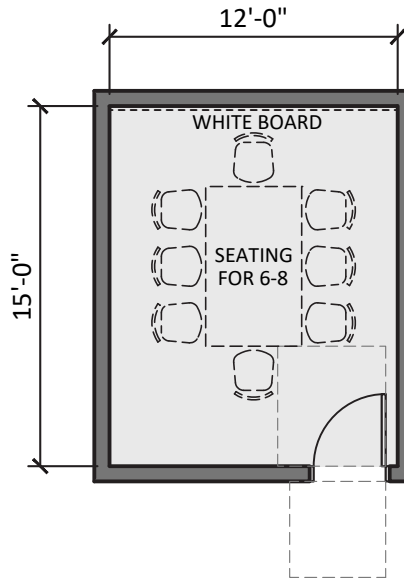
SCALE: 1/8"=1'-0"



FP7 LIBRARY AND STORAGE

- ARCHIVES (100 S.F.)

SCALE: 1/8"=1'-0"

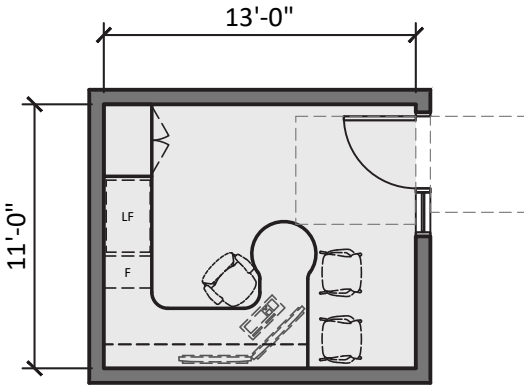


FP8 SMALL CONFERENCE (180 S.F.)

SCALE: 1/8"=1'-0"

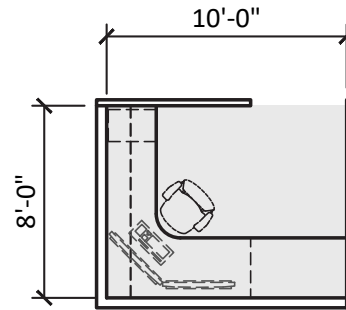


WILDLAND DIVISION (WUI)



WD1 ASSISTANT CHIEF (143 S.F.)

SCALE: 1/8"=1'-0"

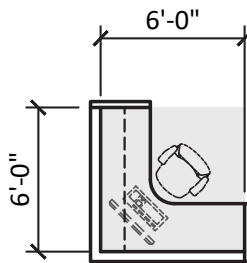


WD2 OFFICE SPECIALIST (80 S.F.)

WD3 WUI CAPTAIN (80 S.F.)

WD4 VEGETATION MANAGEMENT (80 S.F.)

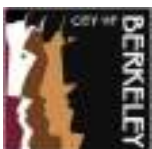
SCALE: 1/8"=1'-0"



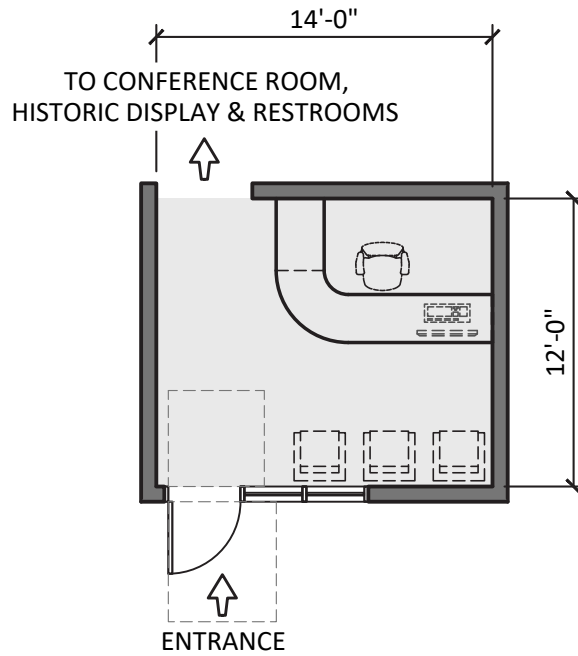
WD5 INSPECTOR OPEN WORK AREA - 3 POSITIONS (108 S.F.)

WD6 FIELD COORDINATOR/INSPECTION EDUCATION/INTERNS - 6 TD (216 S.F.)

SCALE: 1/8"=1'-0"

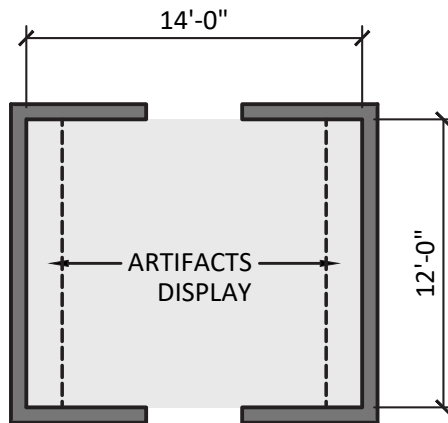


SHARED AND SUPPORT SPACES



S1 PUBLIC ENTRY LOBBY (168 S.F.)

SCALE: 1/8"=1'-0"

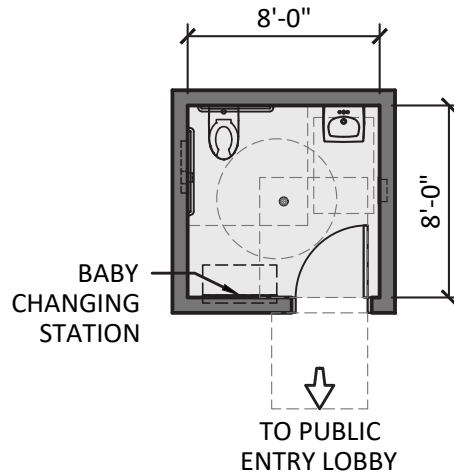


S2 HISTORIC DISPLAY (168 S.F.)

SCALE: 1/8"=1'-0"

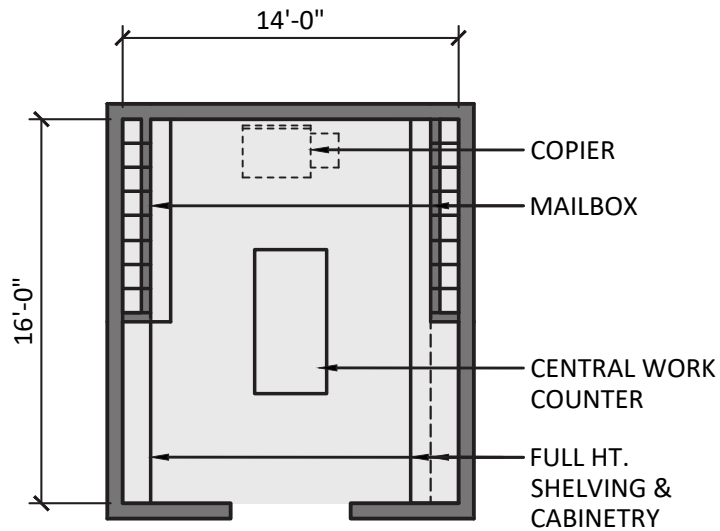


SHARED AND SUPPORT SPACES



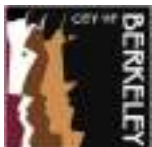
S3 PUBLIC RESTROOM - 2 (128 S.F.)

SCALE: 1/8"=1'-0"

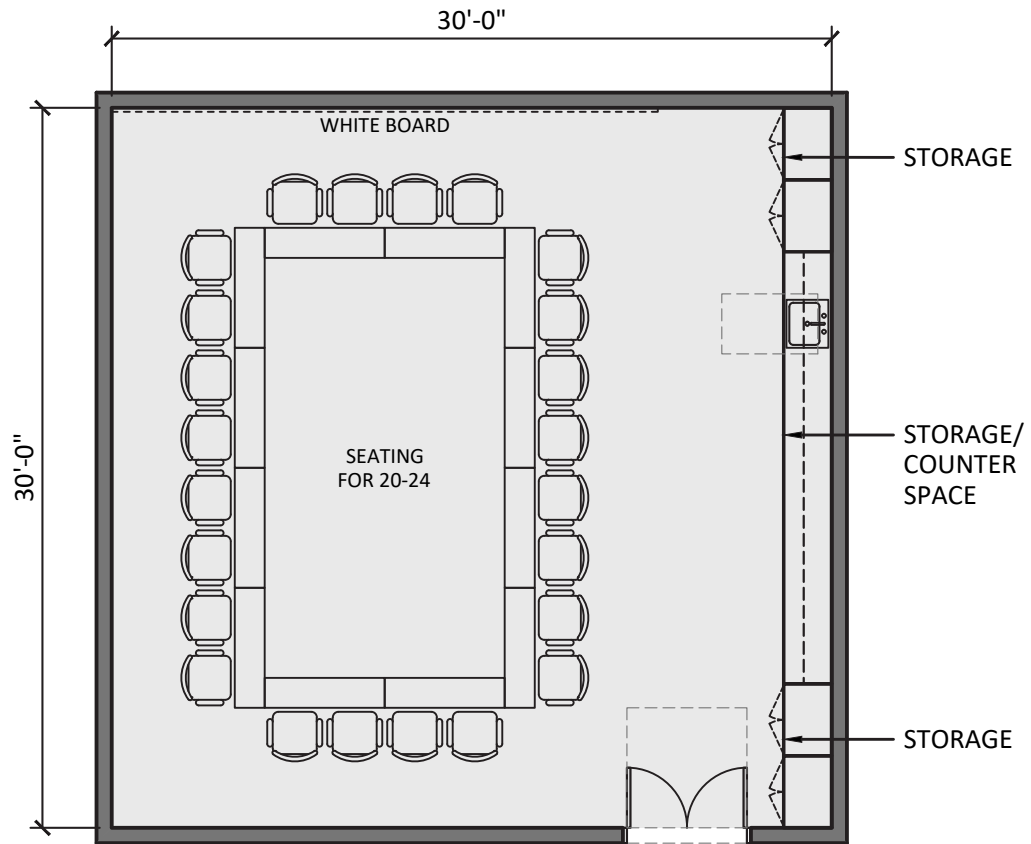


S4 ADMIN. WORKROOM/STORAGE (224 S.F.)

SCALE: 1/8"=1'-0"



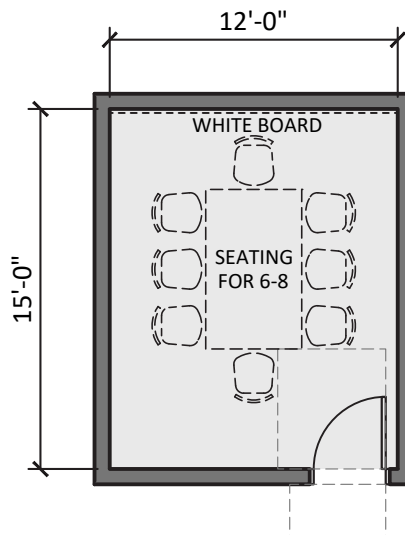
SHARED AND SUPPORT SPACES



S5 LARGE CONFERENCE ROOM (900 S.F.)

SCALE: 1/8"=1'-0"

TO PUBLIC
ENTRY LOBBY

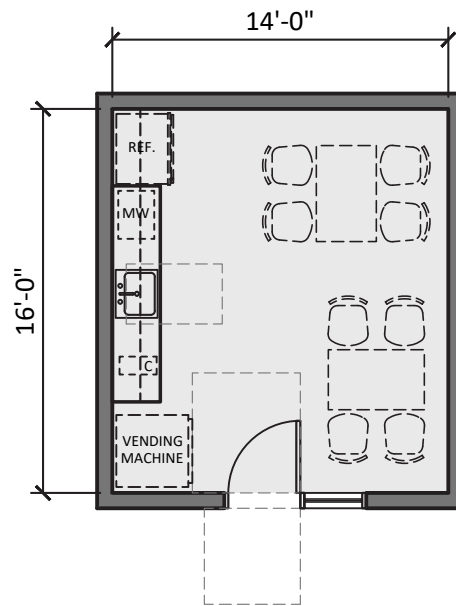


S6 SMALL CONFERENCE (180 S.F.)

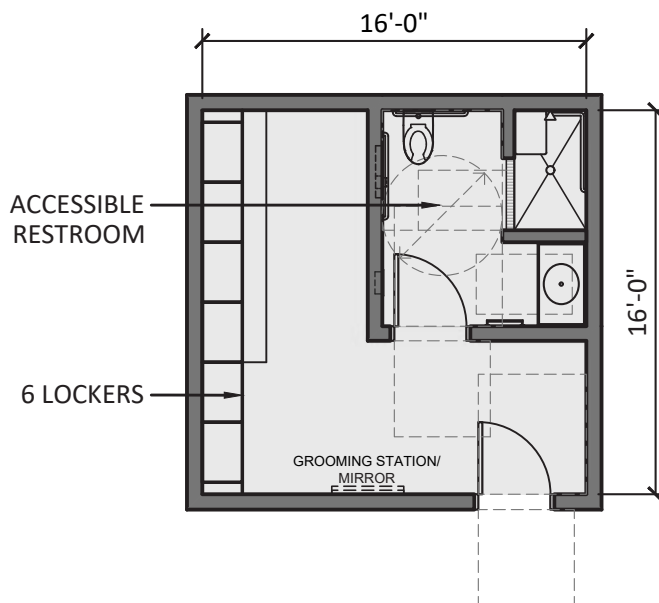
SCALE: 1/8"=1'-0"



SHARED AND SUPPORT SPACES



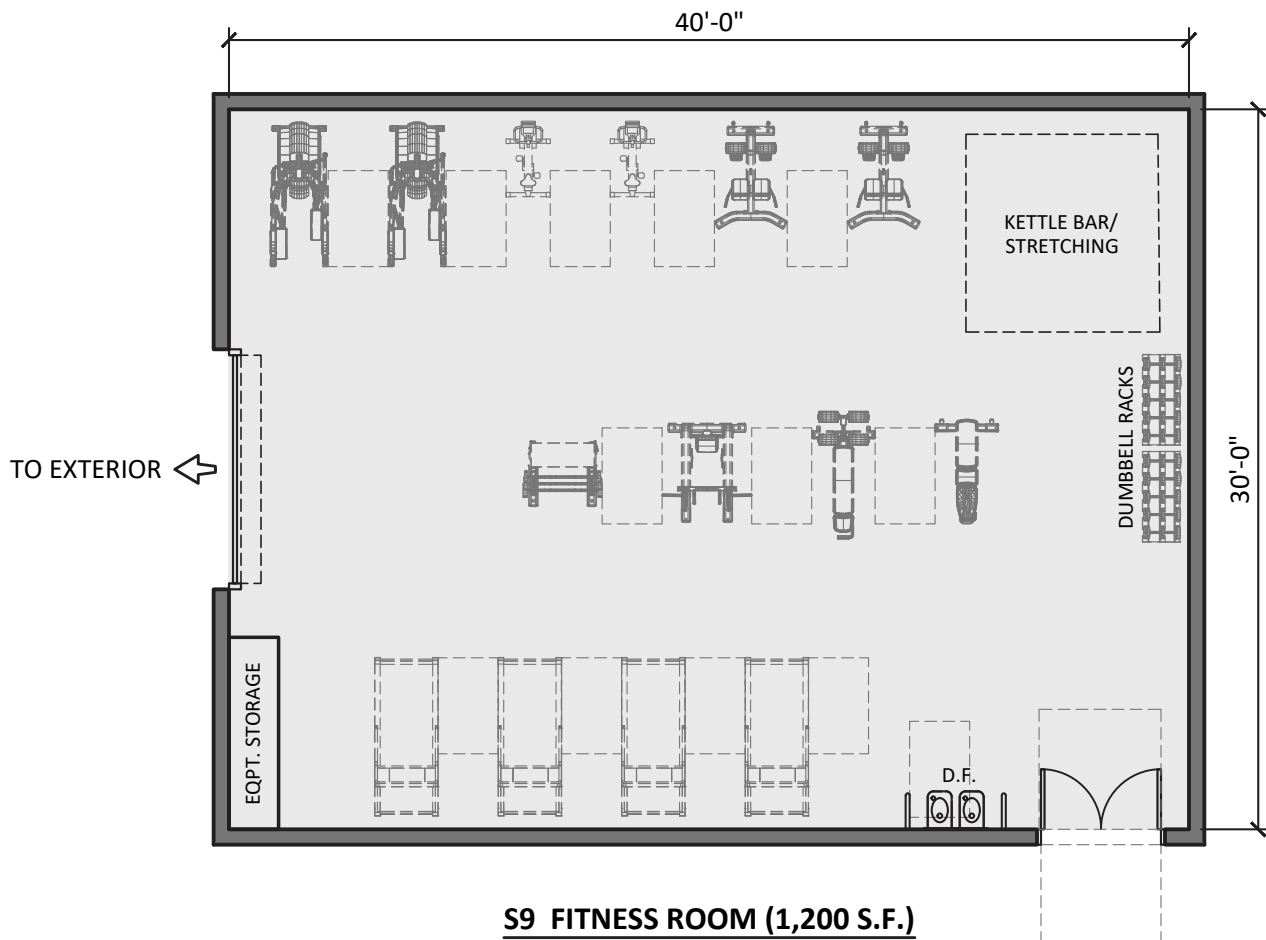
S7 ADMIN. BREAK ROOM (224 S.F.)
SCALE: 1/8"=1'-0"



S8 STAFF RESTROOM/LOCKER ROOM - 2 (384 S.F.)
SCALE: 1/8"=1'-0"

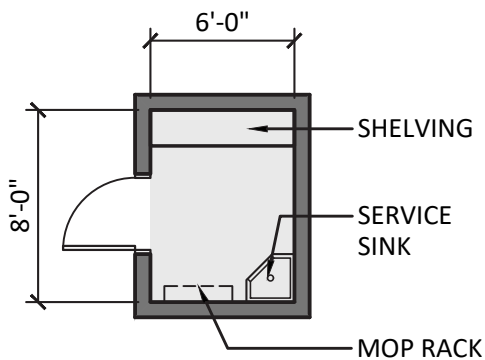


SHARED AND SUPPORT SPACES



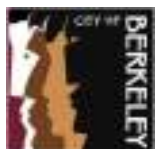
S9 FITNESS ROOM (1,200 S.F.)

SCALE: 1/8"=1'-0"

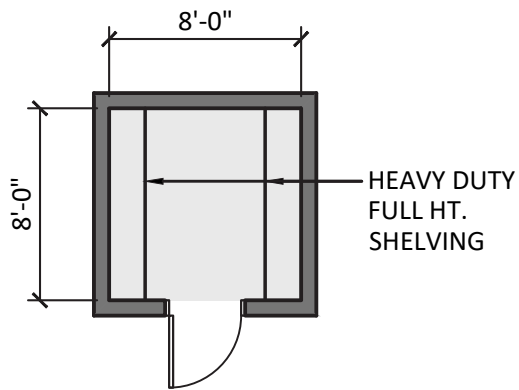


S10 ADMIN. JANITORS ROOM (48 S.F.)

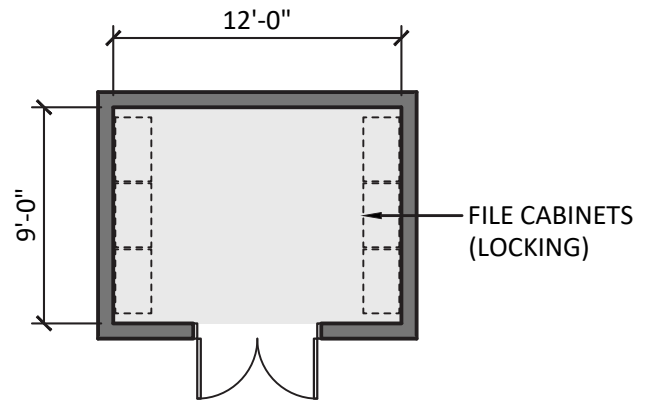
SCALE: 1/8"=1'-0"



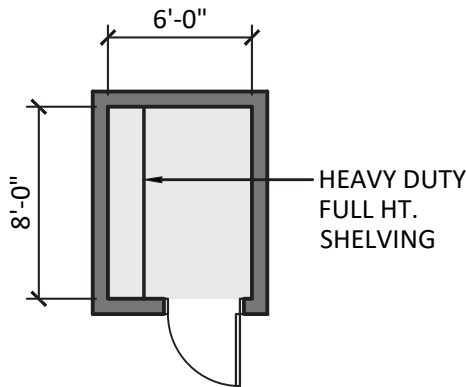
SHARED AND SUPPORT SPACES



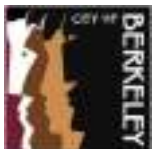
S11 GENERAL STORAGE - SUPPLY (64 S.F.)
SCALE: 1/8"=1'-0"



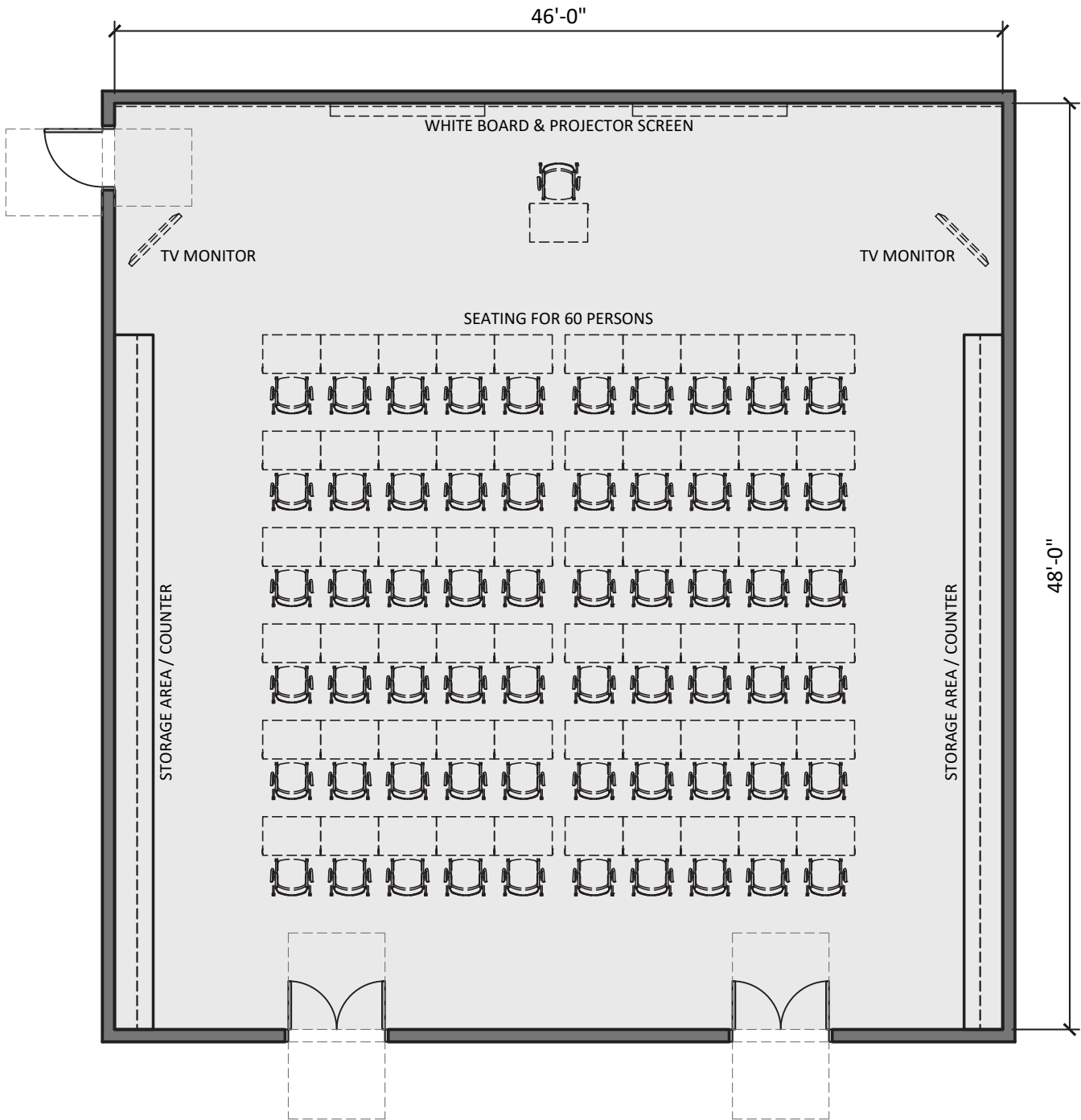
S12 ADMIN. FILE STORAGE (108 S.F.)
SCALE: 1/8"=1'-0"



S13 GENERAL BUILDING STORAGE (48 S.F.)
SCALE: 1/8"=1'-0"

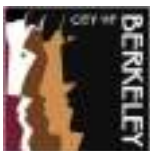


EOC/TRAINING CLASSROOM

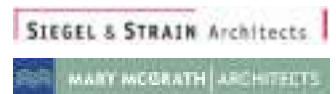


E1 MAIN CLASSROOM (2,208 S.F.)

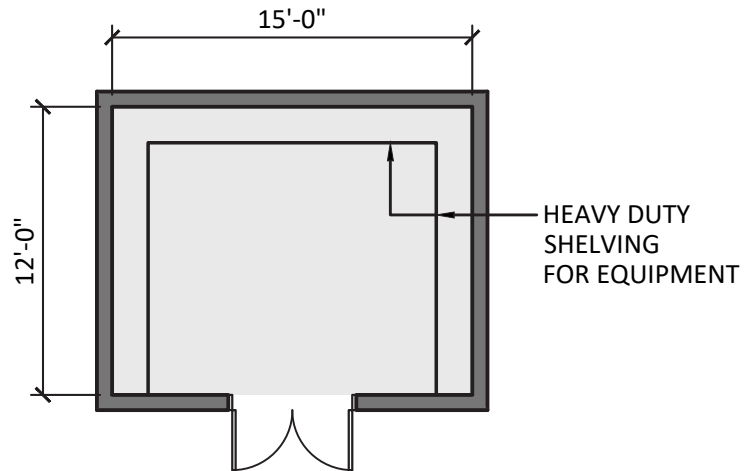
SCALE: 1/8"=1'-0"



CITY OF BERKELEY
HEADQUARTERS, TRAINING CLASSROOMS &
AMBULANCE DEPLOYMENT CENTER
ALS UNIT, 4 BLS UNITS & AMBULANCE-RESERVE

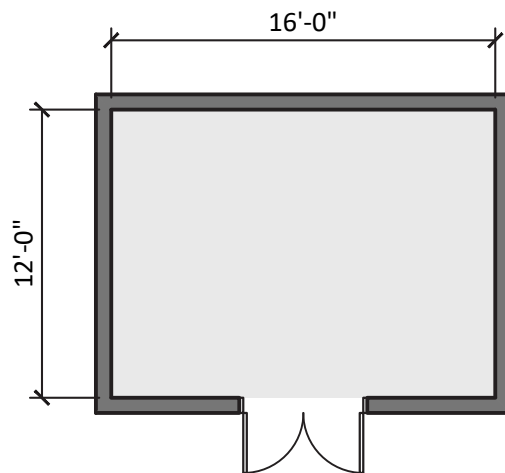


EOC/TRAINING CLASSROOM



E2 EQUIPMENT STORAGE (180 S.F.)

SCALE: 1/8"=1'-0"

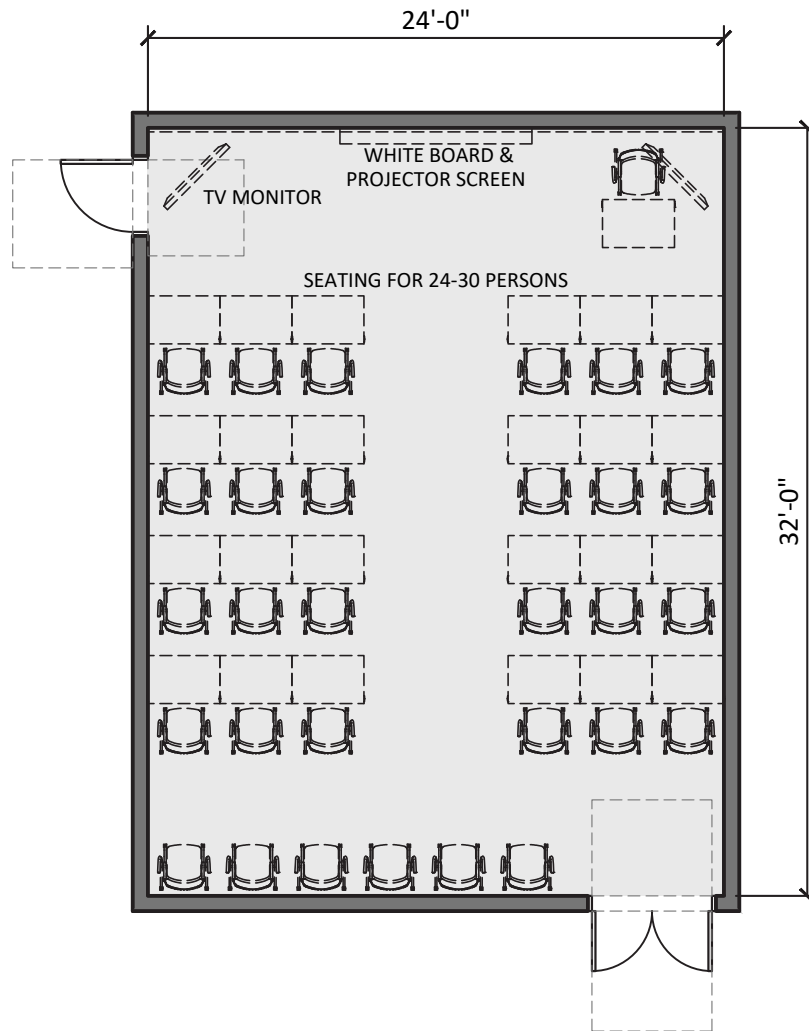


E3 TABLE AND CHAIR STORAGE (192 S.F.)

SCALE: 1/8"=1'-0"



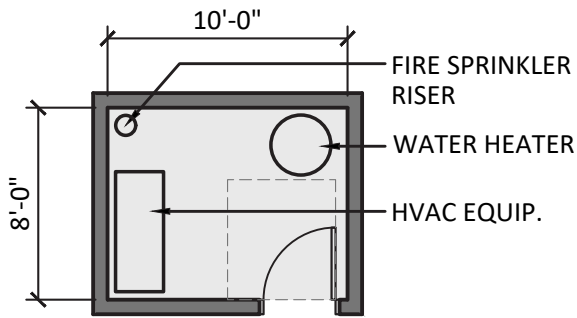
EOC/TRAINING CLASSROOM



E4 SECONDARY CLASSROOM (768 S.F.)
SCALE: 1/8"=1'-0"

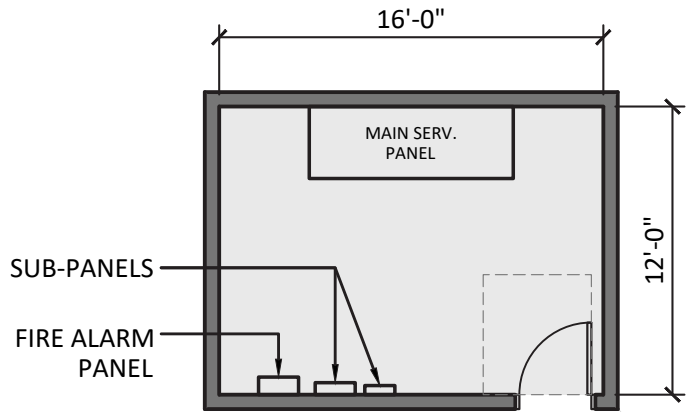


UTILITY SUPPORT SPACE



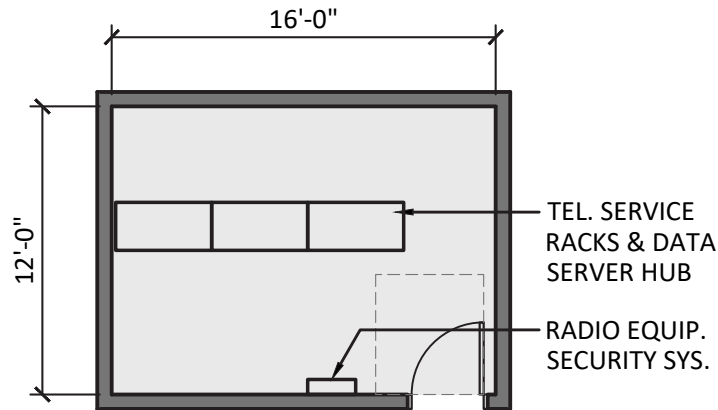
U1 MECHANICAL ROOM - 2 (160 S.F.)

SCALE: 1/8"=1'-0"



U2 ELECTRICAL ROOM (192 S.F.)

SCALE: 1/8"=1'-0"

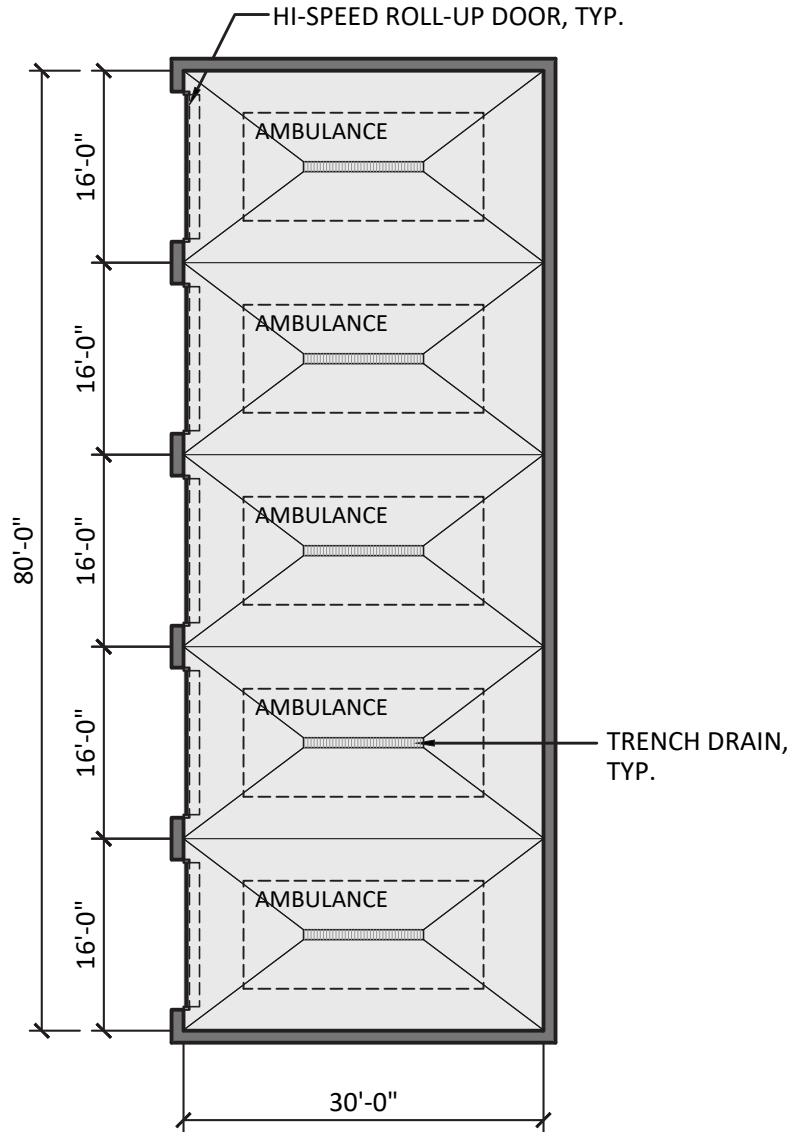


U3 COMMUNICATIONS ROOM (192 S.F.)

SCALE: 1/8"=1'-0"



**AMBULANCE DEPLOYMENT CENTER -
APPARATUS BAY/APPARATUS BAY SUPPORT**

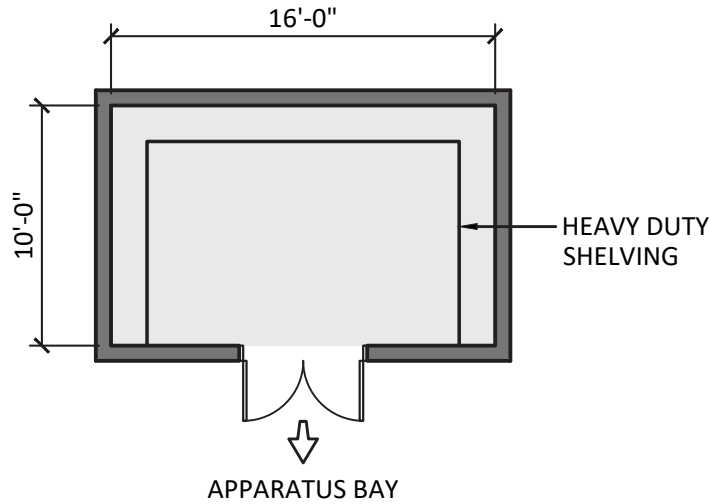


1. APPARATUS BAY - 5 DRIVE-THROUGH BAYS (3,760 S.F.)

SCALE: 1/16"=1'-0"

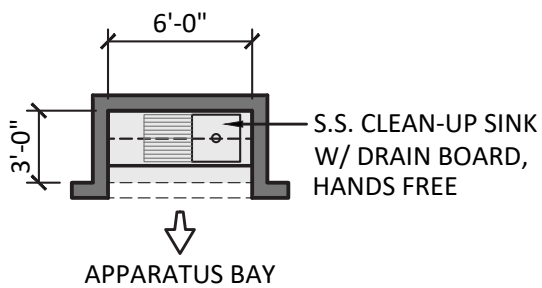


**AMBULANCE DEPLOYMENT CENTER -
APPARATUS BAY/APPARATUS BAY SUPPORT**



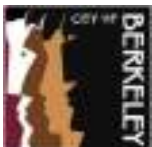
2. MEDICAL SUPPLY (160 S.F.)

SCALE: 1/8"=1'-0"

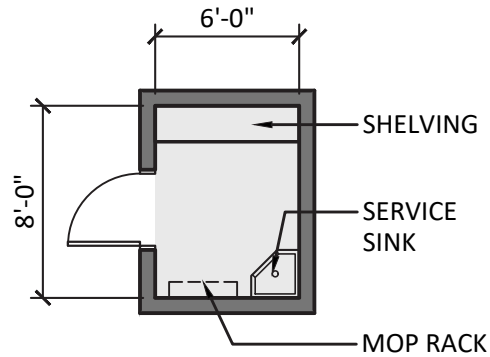


3. CLEAN-UP (18 S.F.)

SCALE: 1/8"=1'-0"

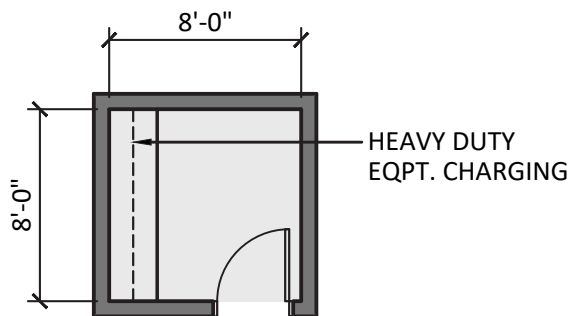


**AMBULANCE DEPLOYMENT CENTER -
APPARATUS BAY/APPARATUS BAY SUPPORT**



4. JANITOR ROOM (48 S.F.)

SCALE: 1/8"=1'-0"

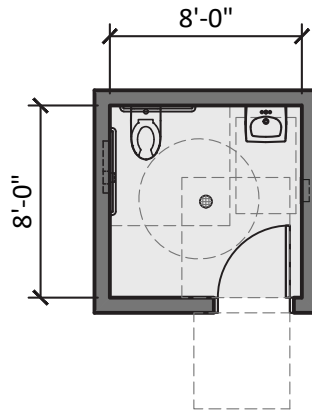


5. MEDICAL EQUIPMENT STORAGE & CHARGING (64 S.F.)

SCALE: 1/8"=1'-0"

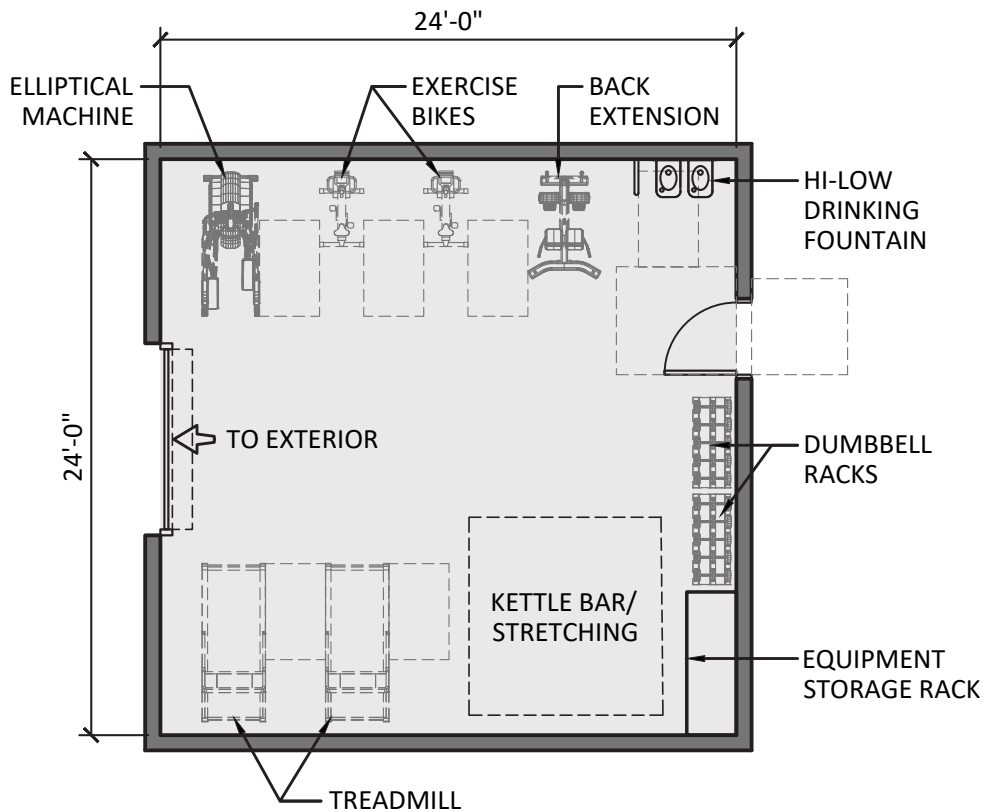


**AMBULANCE DEPLOYMENT CENTER -
APPARATUS BAY/APPARATUS BAY SUPPORT**



6. RESTROOM (64 S.F.)

SCALE: 1/8"=1'-0"

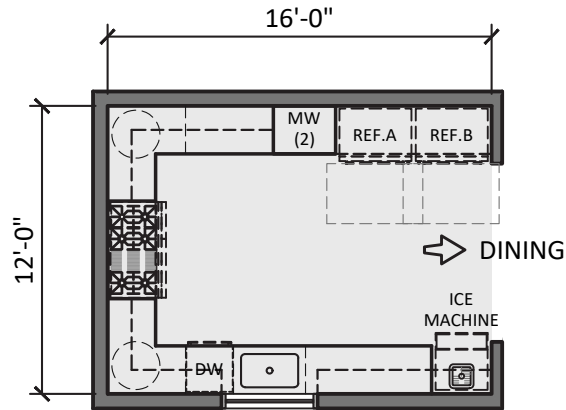


9. FITNESS ROOM (576 S.F.)

SCALE: 1/8"=1'-0"

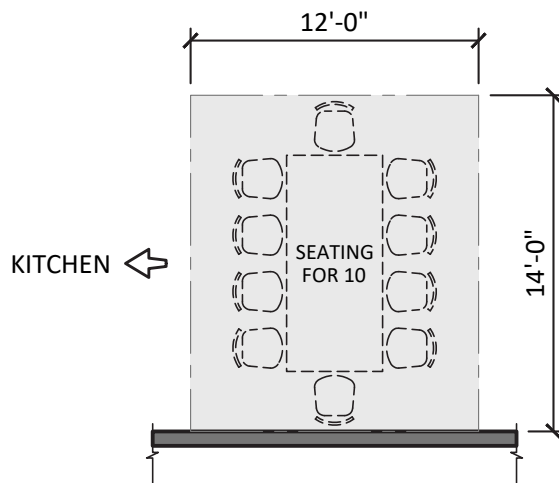


DEPLOYMENT CENTER STAGING AREA



8. KITCHENETTE (192 S.F.)

SCALE: 1/8"=1'-0"

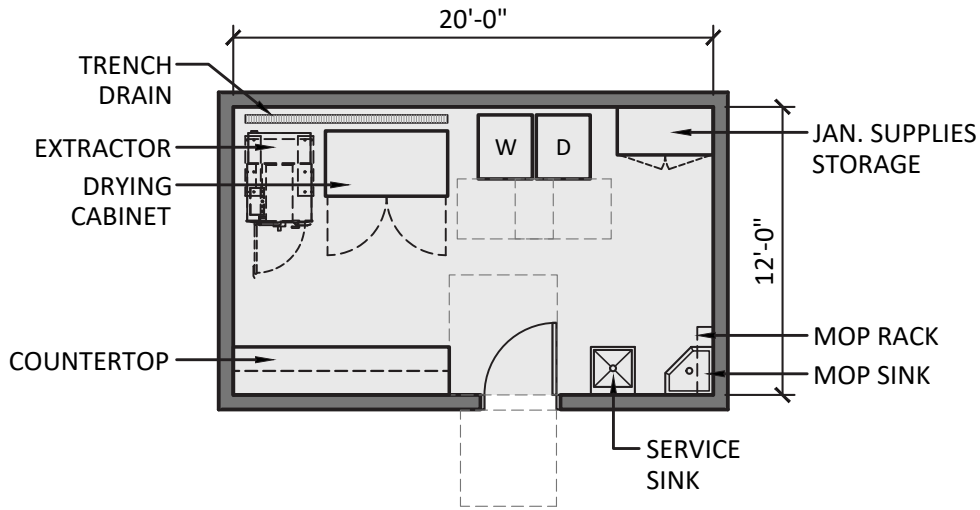


9. DINING AREA (168 S.F.)

SCALE: 1/8"=1'-0"

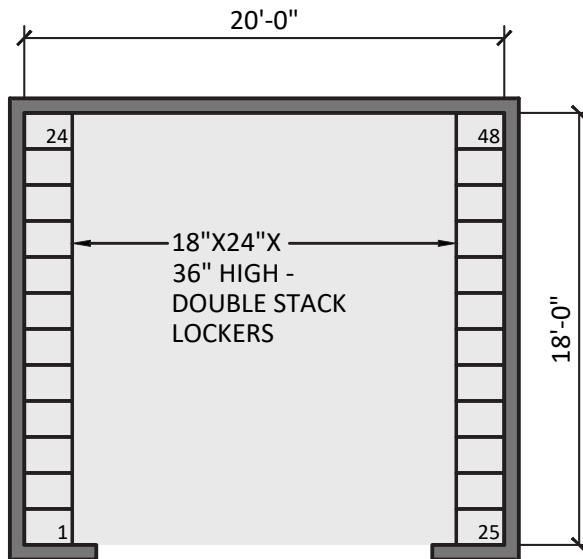


DEPLOYMENT CENTER STAGING AREA



10. LAUNDRY ROOM (240 S.F.)

SCALE: 1/8"=1'-0"

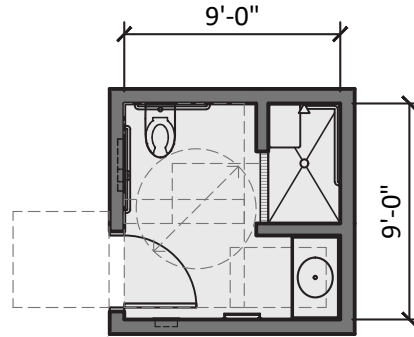


11. LOCKER AREA (360 S.F.)

SCALE: 1/8"=1'-0"

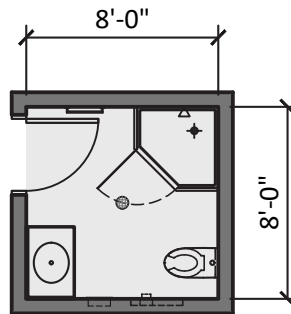


DEPLOYMENT CENTER STAGING AREA



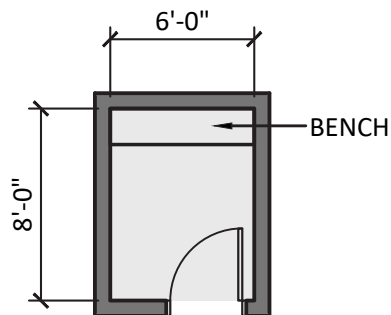
12. GENDER NEUTRAL BATHROOM/SHOWER ADA (81 S.F.)

SCALE: 1/8"=1'-0"



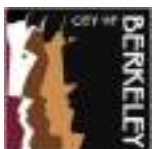
13. GENDER NEUTRAL BATHROOMS - 2 (128 S.F.)

SCALE: 1/8"=1'-0"



14. CHANGING ROOMS - 10 (480 S.F.)

SCALE: 1/8"=1'-0"





TRAINING CENTER



**CITY OF BERKELEY
TRAINING CENTER**

999 CEDAR STREET, BERKELEY, CA 94703

**DRAFT
MAY 08, 2023**

PROJECT DESCRIPTION

The existing training center is colocated with Fire House No. 6 and was built in 1990. Because of its location in a residential neighborhood there are many limitations to the trainings which can be held there and the time in which the trainings can take place. It is also undersized for the current needs of the Berkeley Fire Department. The region (inclusive of the cities of Berkeley, Albany, El Cerrito, Kensington, Richmond, Contra Costa County, and UC Berkeley) is devoid of adequate training space for emergency responders. The closest adequately sized facilities are in Concord and Hayward – far too great a distance to send on-duty staff to train.

The recommendation is to partner with other local municipalities to build a large technical rescue training and education center for this region's first responders.

The ROM Project Budget for the Recommended Option is \$81-90 not including escalation beyond 2024. Note that this cost would be shared with the other participating municipalities.





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SOUTHEAST VIEW

08/05/22 | X002



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OVERALL PLAN

08/05/2022 | X001

Berkeley Regional Training Facility - Brookside Drive

Draft Program

6/13/2022

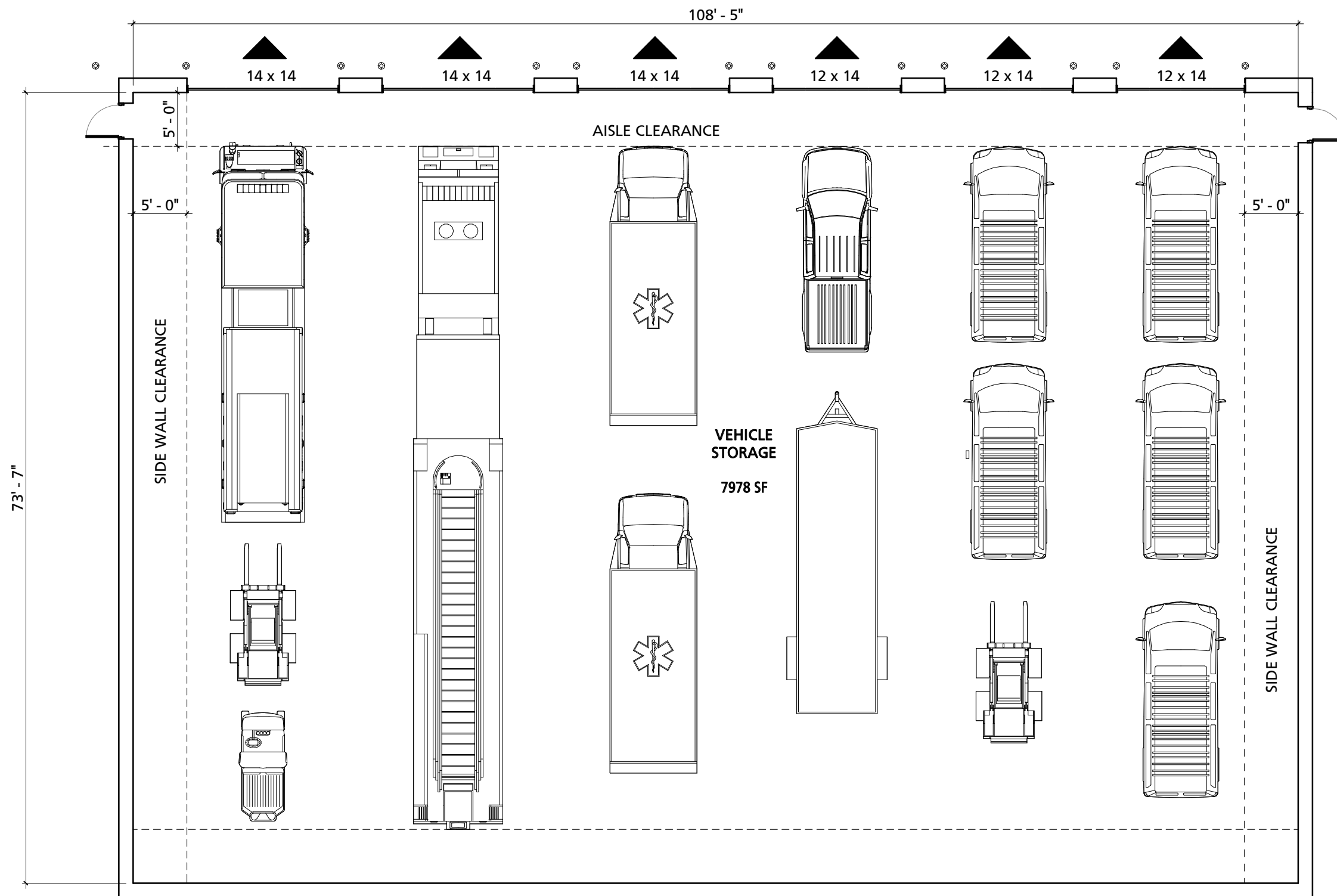
	FUNCTION	COMMENTS	QTY	NOMINAL LENGTH	NOMINAL WIDTH	UNIT NET SF	TOTAL NET SF	GROSS FACTOR	TOTAL GROSS SF
A						INSTRUCTION BUILDING - PHASE 1			
10.1	TURNOUT GEAR - TRAINEE	40 Turnout Gear Lockers	1	19.3 FT	28.8 FT	555 NSF EACH	555 NSF	35%	749 GSF
10.2	TURNOUT GEAR - INSTRUCTOR	10 Turnout Gear Lockers	1	15.3 FT	10.0 FT	153 NSF EACH	153 NSF	35%	207 GSF
11.0	DECON		1	29.3 FT	19.0 FT	557 NSF EACH	557 NSF	35%	752 GSF
11.1	DECON TOILET	Locate near Turnout Gear and Dirty Classroom	2	11.0 FT	9.0 FT	99 NSF EACH	198 NSF	35%	267 GSF
12.0	DIRTY CLASSROOM	Fit (1) apparatus	1	28.0 FT	65.0 FT	1,820 NSF EACH	1,820 NSF	15%	2,093 GSF
13.0	UTILITY/MECHANICAL		1	14.0 FT	10.0 FT	140 NSF EACH	140 NSF	35%	189 GSF
14.0	UTILITY/ELECTRICAL		1	14.0 FT	10.0 FT	140 NSF EACH	140 NSF	35%	189 GSF
15.0	IT/SERVER		1	14.0 FT	10.0 FT	140 NSF EACH	140 NSF	35%	189 GSF
16.0	WORKSHOP		1	15.0 FT	15.0 FT	225 NSF EACH	225 NSF	35%	304 GSF
17.0	SCBA		1	12.0 FT	11.0 FT	132 NSF EACH	132 NSF	35%	178 GSF
17.1	COMPRESSOR ROOM		1	8.0 FT	6.0 FT	48 NSF EACH	48 NSF	35%	65 GSF
SUB TOTALS							4,108 NSF	35% AVG	5,181 GSF
B						CLASSROOM BUILDING - PHASE 2			
1.0	SECURE VESTIBULE/LOBBY		1	20.0 FT	15.0 FT	300 NSF EACH	300 NSF	35%	405 GSF
2.0	TOILET ROOM								
3.0	CLASSROOM	60/30 Students, Dividable into 2 smaller rooms	2	54.5 FT	38.3 FT	2,085 NSF EACH	4,169 NSF	35%	5,628 GSF
3.1	BREAKOUT ROOM		4	16.0 FT	12.0 FT	192 NSF EACH	768 NSF	35%	1,037 GSF
4.0	OFFICE SPACES		25						
4.1	SMALL OFFICE	1 occupant	10	10.0 FT	8.5 FT	85 NSF EACH	850 NSF	35%	1,148 GSF
4.2	MANAGER OFFICE	1 occupant		10.5 FT	11.5 FT	121 NSF EACH	NSF	35%	GSF
4.3	GROUP OFFICE	4 occupants	4	13.0 FT	16.0 FT	208 NSF EACH	832 NSF	35%	1,123 GSF
4.4	OPEN OFFICE	16 occupants		26.0 FT	22.5 FT	585 NSF EACH	NSF	35%	GSF
5.0	CAFETERIA/DINING	40 People	1	41.8 FT	26.0 FT	1,086 NSF EACH	1,086 NSF	35%	1,465 GSF
6.0	FITNESS	40 People	1	47.5 FT	25.0 FT	1,188 NSF EACH	1,188 NSF	35%	1,603 GSF
7.0	VR SIMULATOR ROOM	was 'Command Simulation'	1	30.0 FT	12.0 FT	360 NSF EACH	360 NSF	35%	486 GSF
8.0	DRIVING SIMULATOR ROOM	was 'VR Room'	1	20.0 FT	16.0 FT	320 NSF EACH	320 NSF	35%	432 GSF
9.0	LOCKER & T/S ROOM	40 Lockers, 6 T/S	1	27.3 FT	51.0 FT	1,392 NSF EACH	1,392 NSF	35%	1,880 GSF
SUB TOTALS							9,872 NSF	35% AVG	13,328 GSF
C						APPARATUS STORAGE			
1.0	VEHICLE STORAGE		1	108.5 FT	73.5 FT	7,975 NSF EACH	7,975 NSF	0%	7,975 GSF
1.1	ENGINE		1			NSF EACH	NSF	35%	GSF
1.2	MEDIC		2			NSF EACH	NSF	35%	GSF
1.3	SPRINTER VAN		5			NSF EACH	NSF	35%	GSF

Berkeley Regional Training Facility - Brookside Drive

Draft Program
6/13/2022

1.4	STAFF TRUCK		1		NSF EACH	NSF	35%	GSF
1.5	RESCUE TRAILER	30' Tow	1		NSF EACH	NSF	35%	GSF
1.6	TILLER		1		NSF EACH	NSF	35%	GSF
1.7	FORKLIFT		2		NSF EACH	NSF	35%	GSF
1.8	GATOR		1		NSF EACH	NSF	35%	GSF
SUB TOTALS						7,975 NSF	35% AVG	7,975 GSF

D		SITE TRAINING						
1.0	BART STATION		1	30.0 FT x 80.0 FT	2,400 NSF EACH	2,400 NSF	0%	2,400 GSF
2.0	FLASHOVER SIM TRAILER		1		NSF EACH	NSF	0%	GSF
3.0	VEHICLE RESCUE/EXTRACTION		1	100.0 FT x 75.0 FT	7,500 NSF EACH	7,500 NSF	0%	7,500 GSF
4.0	CONFINED SPACE		1	50.0 FT x 50.0 FT	2,500 NSF EACH	2,500 NSF	0%	2,500 GSF
5.0	VENTILATION SIMULATOR		1		NSF EACH	NSF	0%	GSF
6.0	RESIDENTIAL SEARCH AND RESCUE		1	50.0 FT x 50.0 FT	2,500 NSF EACH	2,500 NSF	0%	2,500 GSF
6.1	BASEMENT SIMULATOR						0%	
7.0	BREACHING PROP		1		NSF EACH	NSF	0%	GSF
8.0	SPRINKER LAB		1		NSF EACH	NSF	0%	GSF
9.0	STANDPIPE/HIGH RISE		1		NSF EACH	NSF	0%	GSF
10.0	ELEVATOR PROP		1		197 NSF EACH	197 NSF	0%	266 GSF
12.0	TRENCH RESCUE		1	100.0 FT x 75.0 FT	7,500 NSF EACH	7,500 NSF	0%	7,500 GSF
13.0	HIGH ANGLE RESCUE		1	50.0 FT x 50.0 FT	2,500 NSF EACH	2,500 NSF	0%	2,500 GSF
14.0	DRAFTING PIT		1		NSF EACH	NSF	0%	GSF
SUBTOTALS						25,097 NSF	% AVG	25,166 GSF



VEHICLE STORAGE

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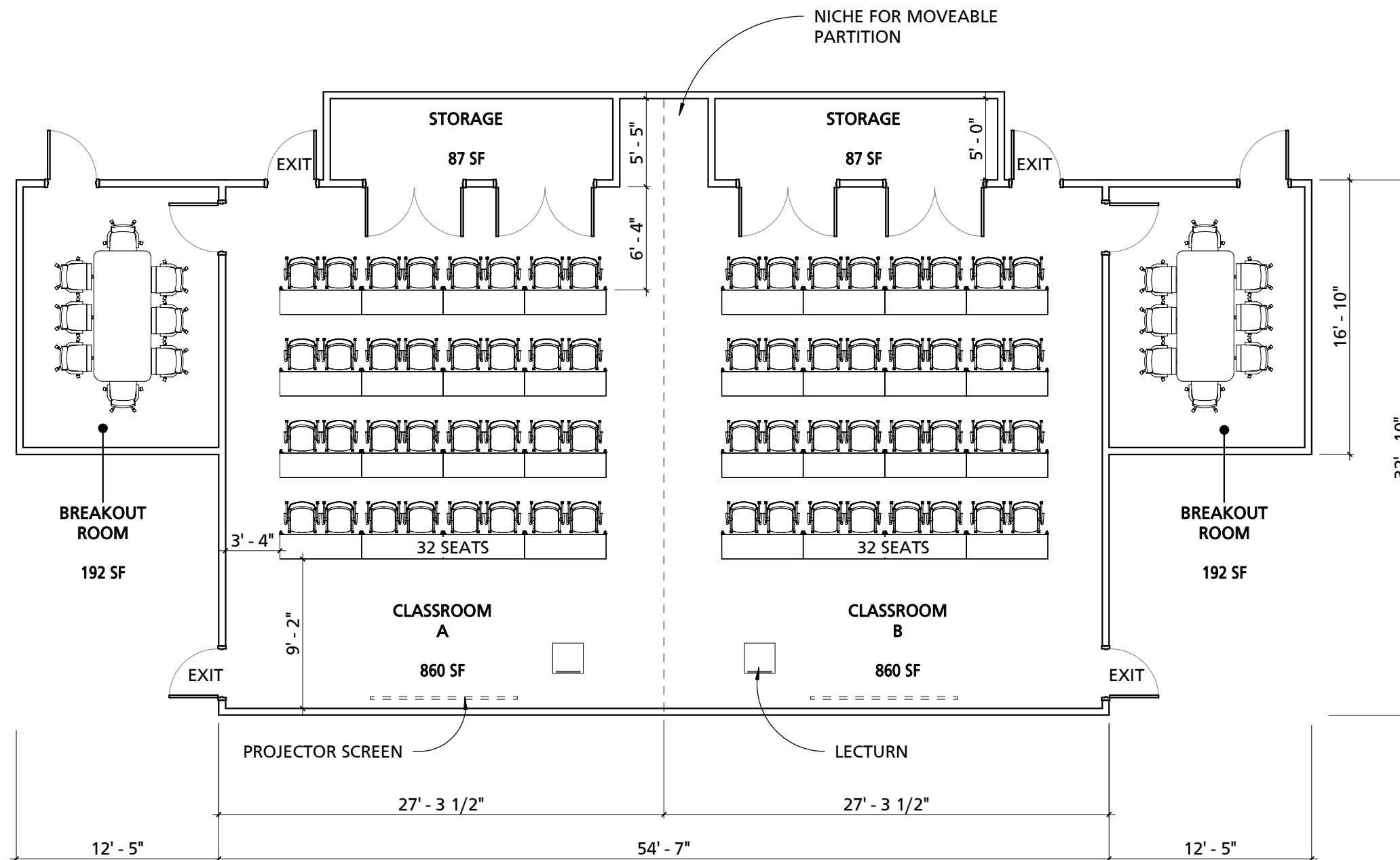
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06/02/2022

DWG SCALE:
3/32" = 1'-0"

DWG NUMBER:
PR-1

6/7/2022 5:26:50 PM



CLASSROOM

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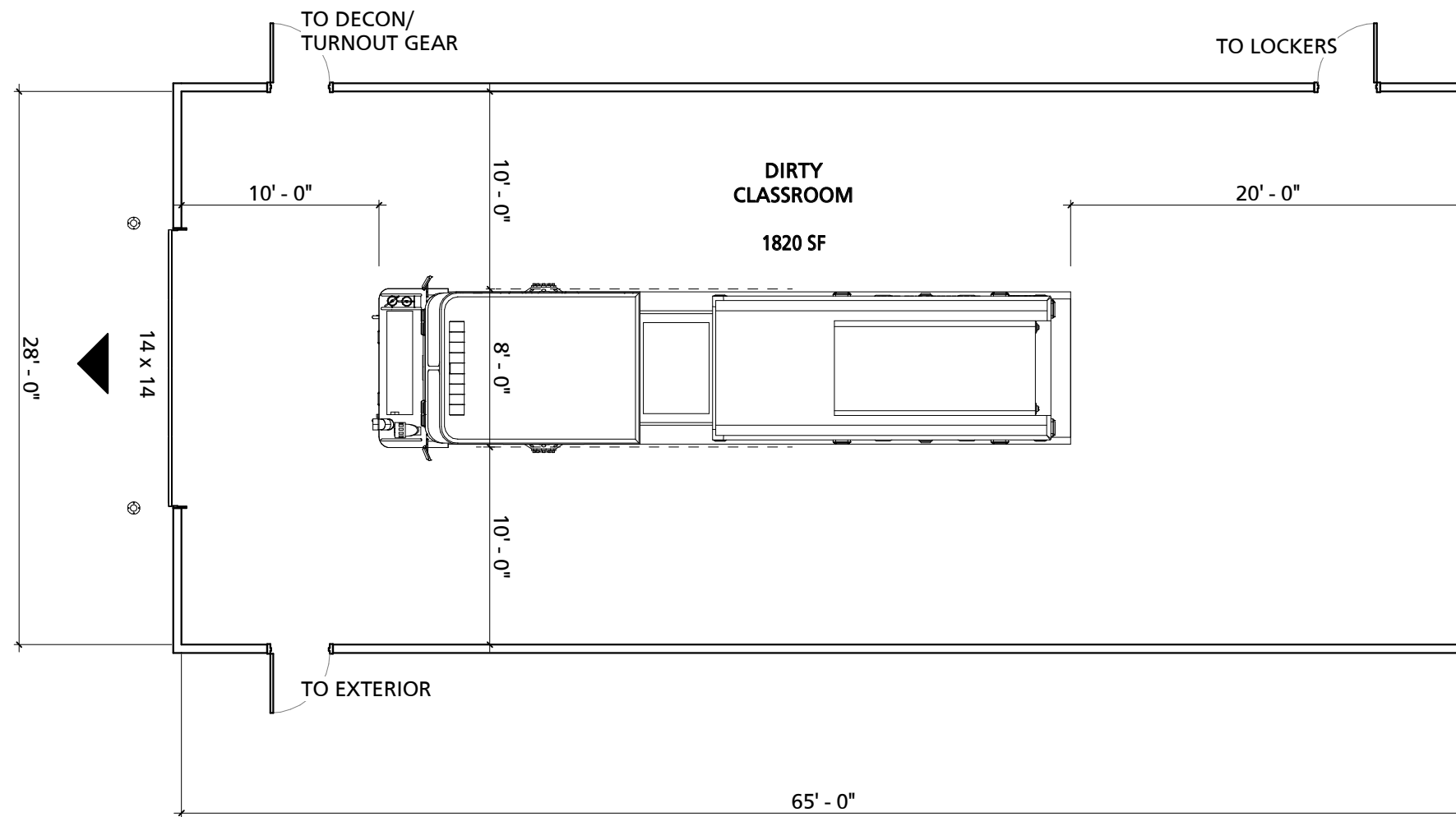
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DIRTY CLASSROOM

BERKELEY TRAINING FACILITY

JOB NO:21-000

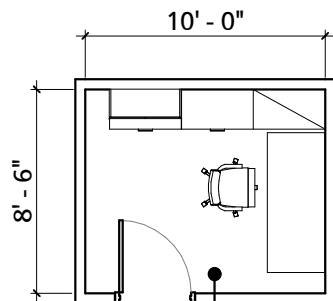
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PR-12.0



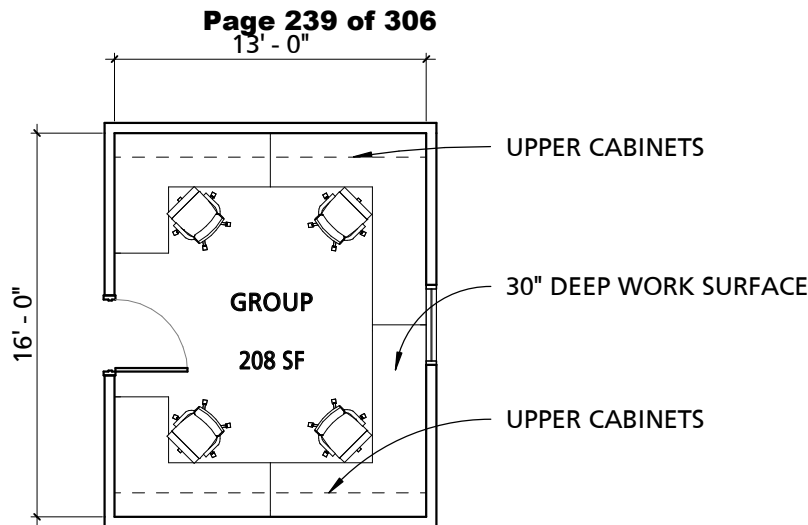
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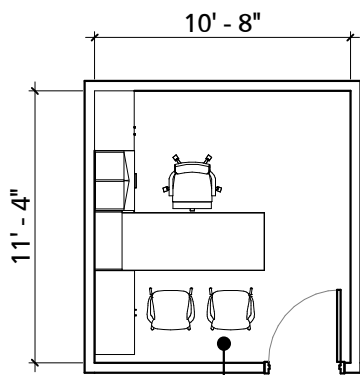
SMALL OFFICE

85 SF

PR-4.1 Office



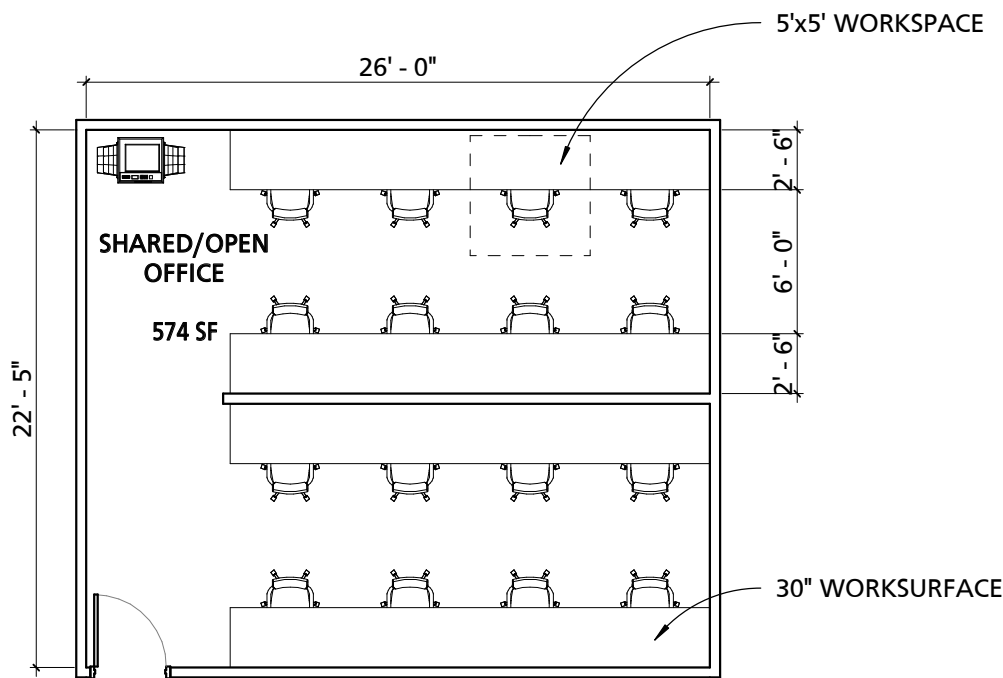
PR-4.3 Group Office



SMALL MANAGER OFFICE

121 SF

PR-4.2 Manager Office



PR-4.4 Open Office

OFFICES

BERKELEY TRAINING FACILITY

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DISHWASHER
REFRIGERATOR/FREEZER

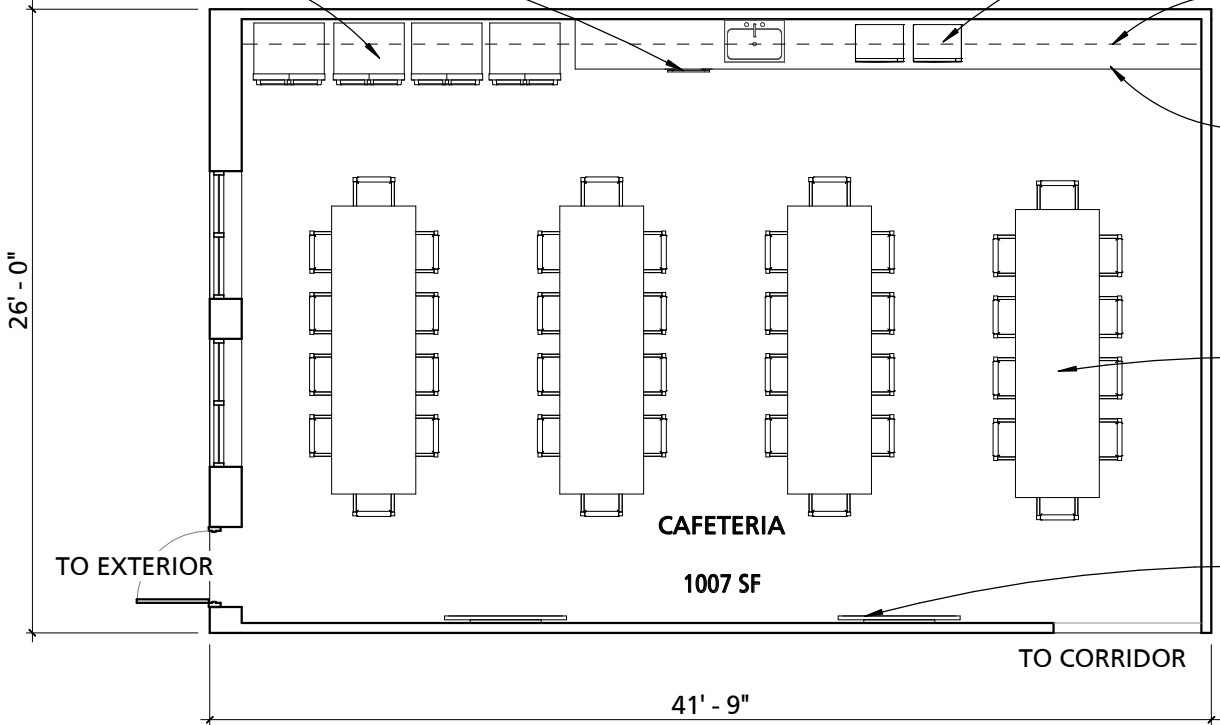
MICROWAVE

WALL CABINETS

COUNTERTOP W/
BASE CABINETS

DINING TABLES
(10 SEATS EACH)

WALL MOUNTED TV



CAFETERIA

1007 SF

TO EXTERIOR

TO CORRIDOR

CAFETERIA

BERKELEY TRAINING FACILITY

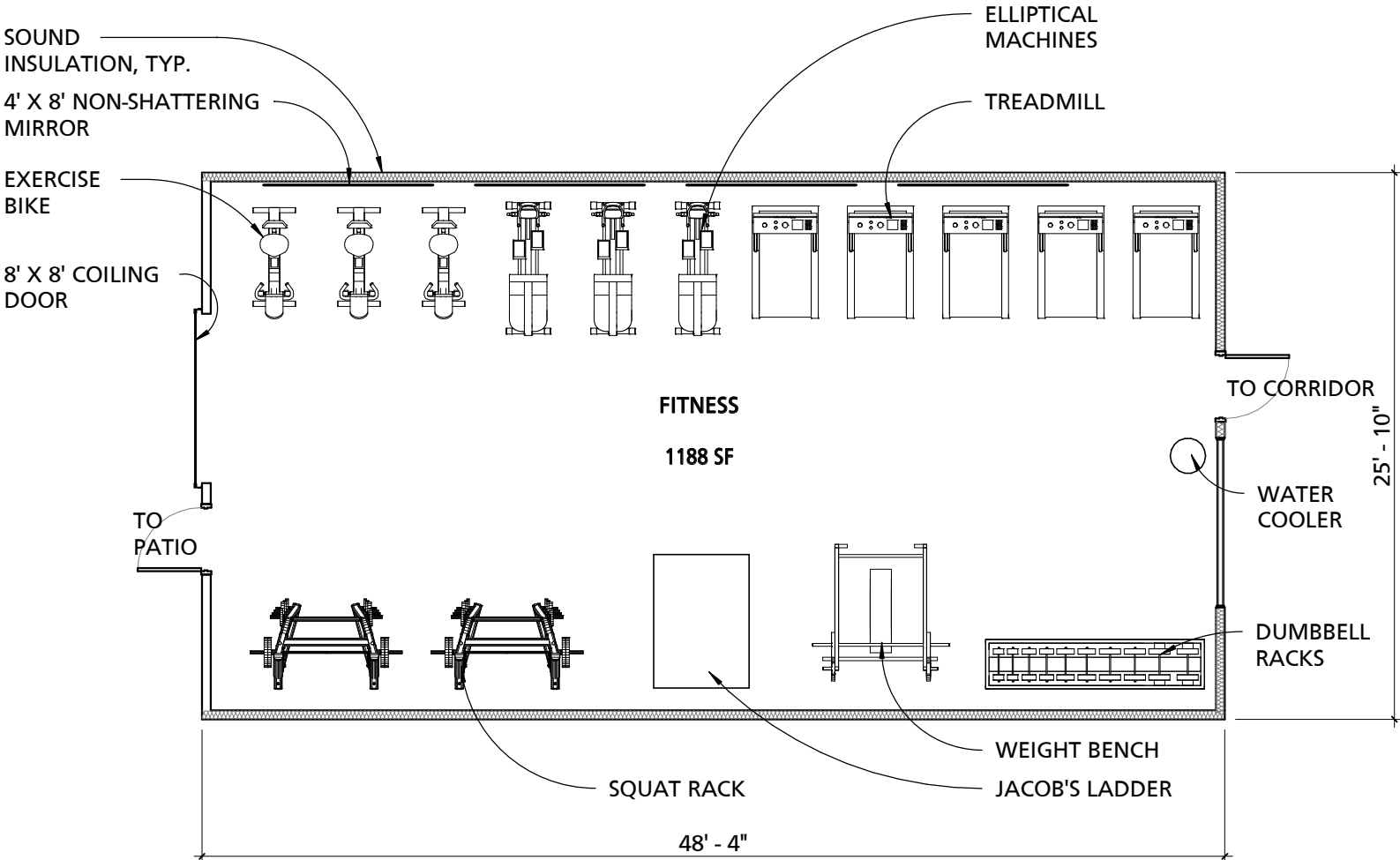
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FITNESS

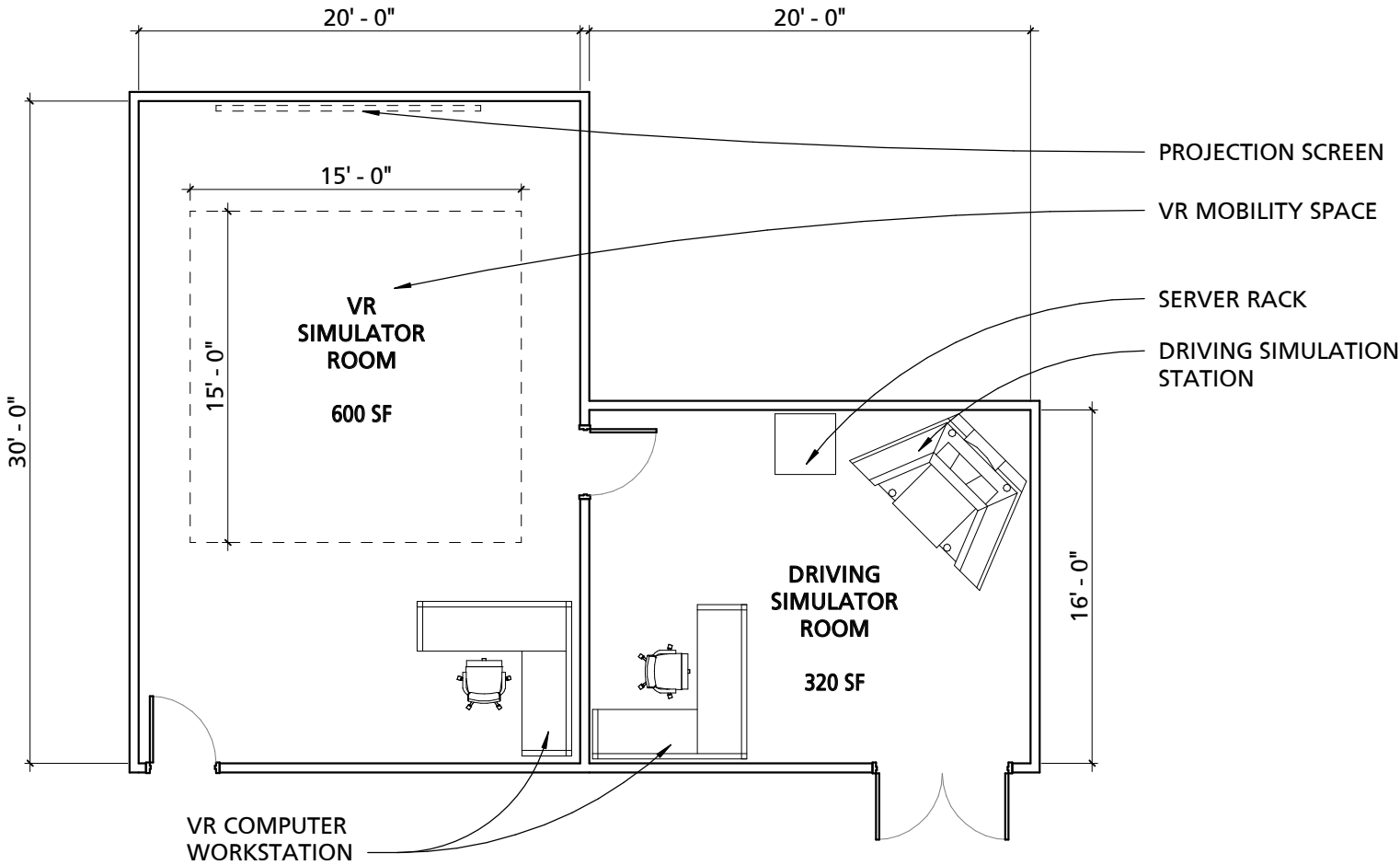
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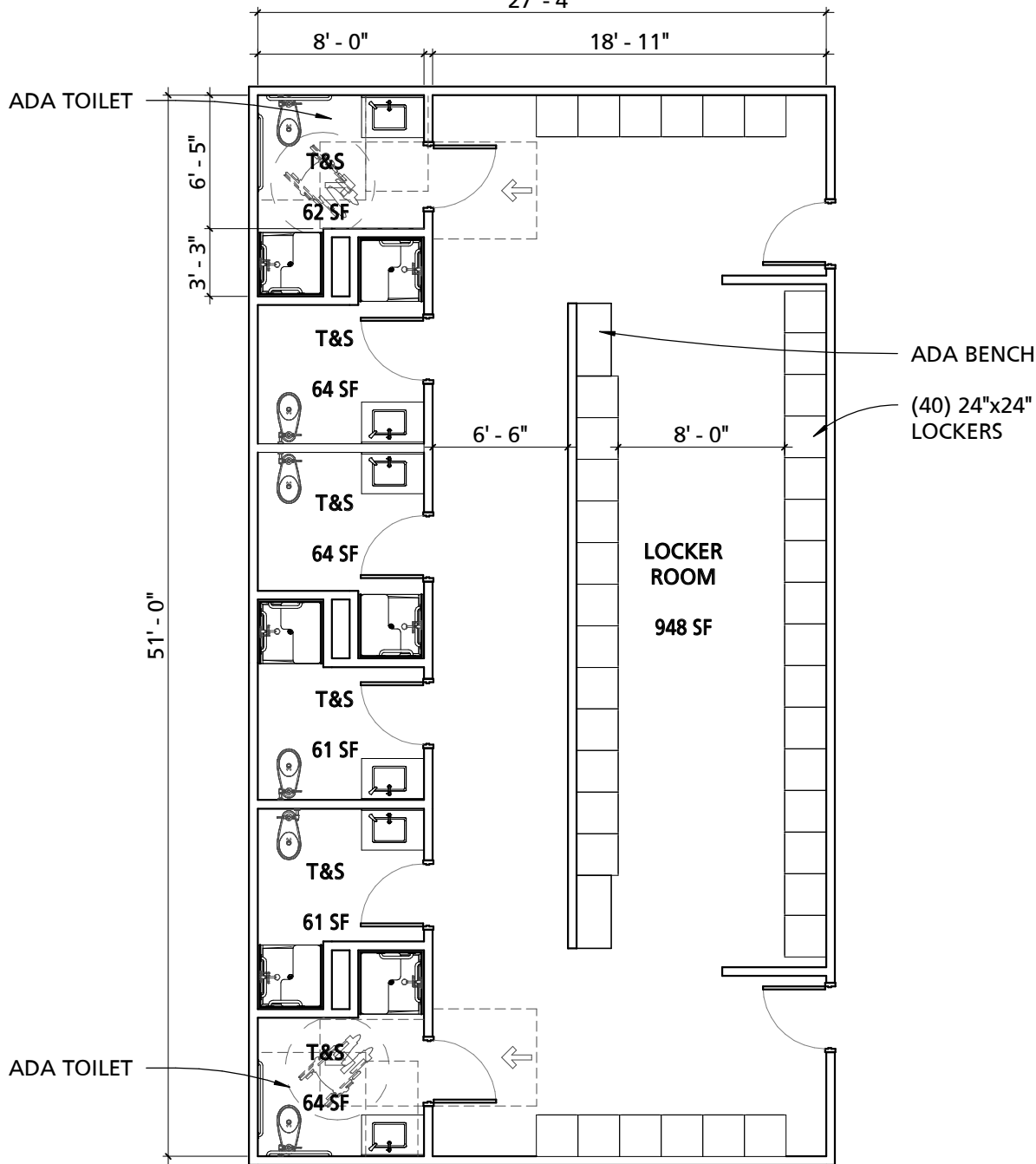


VR ROOMS

BERKELEY TRAINING FACILITY

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DWG NUMBER: PR-7.0

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LOCKERS

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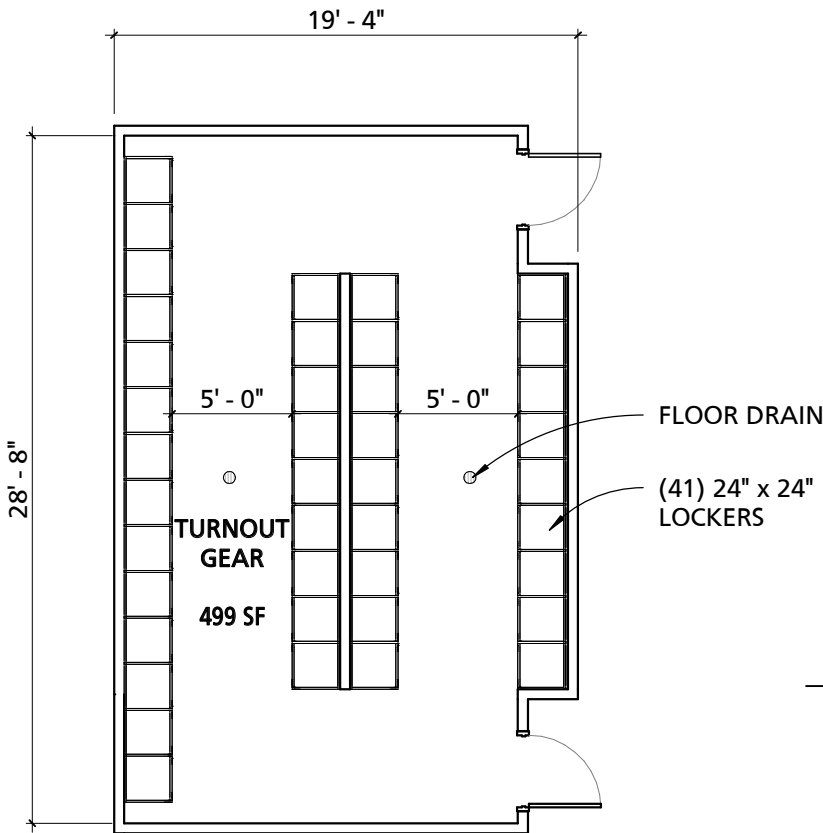
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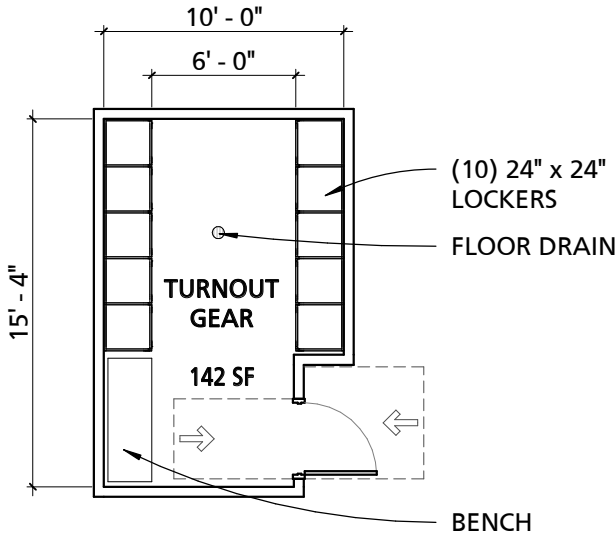
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PR-9.0

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PR-10.2 Turnout Gear - Instructor



PR-10.1 Turnout Gear - Trainee

TURNOUT GEAR

BERKELEY TRAINING FACILITY

JOB NO:21-000

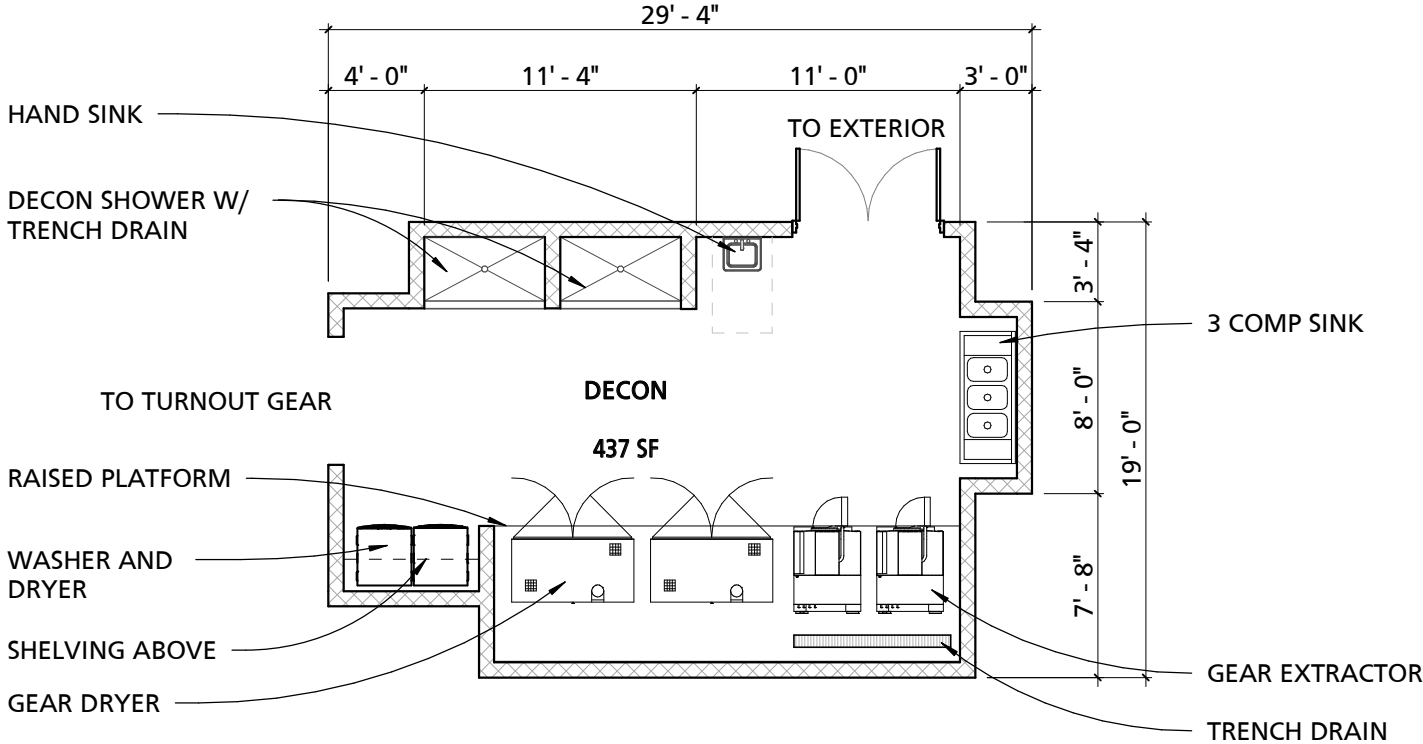
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DWG NUMBER:

PR-10.0

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DECON

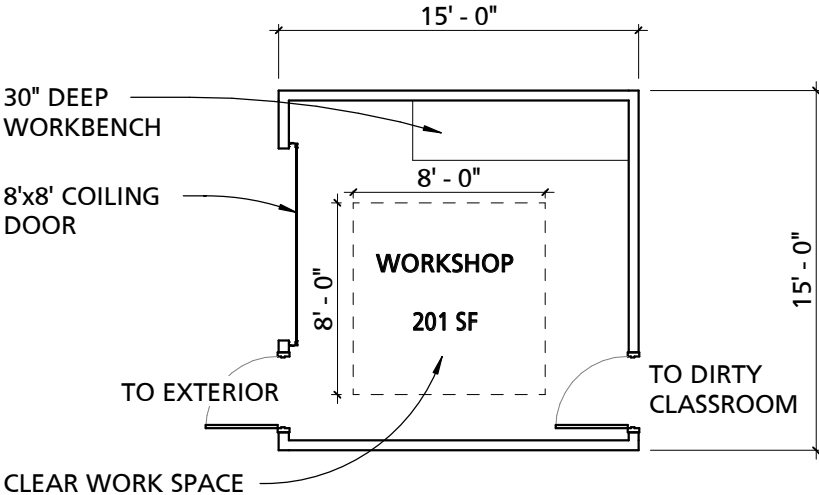
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WORKSHOP

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MEMORANDUM

To: Susi Marzuola and Madison Jackson, Siegel & Strain Architects
 From: Dena Belzer and Tatum Troutt
 Date: November 10, 2022
 Project: Berkeley Fire Department Master Plan
 Subject: Mixed-Use Fire Station Case Studies

The City of Berkeley Fire Department is in the process of developing an Essential Facilities Master Plan to address the replacement and/or upgrading of current Fire Department facilities. As part of this process, the potential to use “public private partnerships” involving fire stations incorporated into larger mixed-use development is being explored as an option for funding some or all of the cost to provide new or upgraded fire station facilities. Strategic Economics was hired to conduct case studies profiling mixed-use fire stations to determine how transferable these examples could be to the Berkeley context and therefore whether the public/private approach should be considered as a potential funding option.

Mixed-use fire stations are very unusual, thus limiting the potential pool of case studies to draw upon. However, there is growing interest in pursuing this type of development project, particularly in land-constrained and highly urbanized areas. The case studies presented below were identified by the consultant team based on professional knowledge and potential fit with Berkeley Fire Department’s interest in the potential to use new development to help fund fire stations. Information for each case study was collected from official planning documents, local news outlets, CoStar real estate data service, and discussions with key stakeholders. The case studies summarize each project’s development history, funding sources general takeaways, and potential applicability to the Berkeley Fire Department. This memorandum presents the following case studies:

- 1) Fire Station 13, San Francisco, California
- 2) The Station at Potomac Yard, Alexandria, Virginia
- 3) Lincoln Towers in Wilmington, Delaware

Each case study provided valuable context for the prospect of building mixed-use fire stations in Berkeley. The case studies represent diverse market conditions, site needs, funding streams, and challenges, all of which impacted the ability to build these projects. The details of each case study and their applicability to Berkeley are detailed in the body of the memo, but the following points summarize the key takeaways based on the overall differences and similarities among the case studies:

- 1) **Developer contributions to funding mixed-use fire stations are only possible when the private development generates enough value to pay for the extra construction costs without impacting expected rates of return for the overall project.** Both Fire Station 13 in San Francisco and The Station at Potomac Yards involved very large-scale development programs.
- 2) **California's seismic building codes are extremely stringent for public safety buildings.** As a result, if a fire station were to be integrated into a mixed-use building, the entire building would need to meet these high seismic safety standards, making construction costs prohibitive. Other states do not have these same seismic safety issues; therefore, it is not as challenging to integrate a fire station into a mixed-use building.
- 3) **Berkeley could use its community benefits program to help pay for fire stations, but this would create some challenges.** First, developers only provide a community benefits package when they are requesting a rezoning or General Plan amendment that would create a significant uplift in the overall value of their project. Not all development projects contribute community benefits, so this would be a limited opportunity to generate additional revenue for fire stations. Second, community benefits packages in Berkeley typically include offering more affordable housing units or deeper affordability. If developers were asked to contribute towards fire stations instead, the City would have fewer opportunities to produce affordable housing.
- 4) **Each of these projects benefitted from having other funding sources already in place to offset some costs.** In San Francisco, there was already money for the interim operations of a fire station, and in Alexandria and Lincoln, there were various sources of government funding and financing to help pay for components of the construction costs.
- 5) **Given the costs associated with the seismic safety requirements for fire stations in California, pairing affordable housing with a fire station is not cost-effective.** The projects in Alexandria and Lincoln incorporated affordable housing which inherently requires the use of many different funding and financing sources. This is also possible in Berkeley, but the extraordinary costs make combining a fire station and an affordable housing project cost prohibitive. Additionally, tax credits which are used for low-income housing would likely not be awarded to such a high-cost project.¹

Fire Station 13: San Francisco, CA

Fire Station 13 is located at 530 Sansome Street in San Francisco's Financial District near Chinatown and the Jackson Square Historic District. Built in 1975, this active fire station serves the Financial District and is one of the busiest fire stations in the City. In the early 2000s, Supervisor Aaron Peskin suggested exploring the potential to redevelop this site with housing, but the idea was not pursued further at the time. After reelection more than a decade later, Supervisor Peskin again introduced the idea in 2017. The proposal was to utilize city controlled buildable air rights to fund improvements to an outdated fire station including improved ventilation and a better layout to improve efficiency for the firefighters.

By 2017, the housing crisis in San Francisco was much more acute than in 2002, so this concept was presented as a potential source for funding affordable housing, as well as for achieving other community benefits including preserving a specific legacy business nearby and modernizing the fire station itself. The potential to capture these community benefits and to enhance to public safety by

¹ [California Tax Credit Allocation Committee Regulations Implementing the Federal and State Low Income Housing Tax Credit Laws: Section 10317. State Tax Credit Eligibility Requirements.](#)

building a more efficient and effective fire station were recognized as important enough by the community and other stakeholders to enable the concept to gain more traction than it had the first time it was proposed. The combination of the needs of the City and the strong market conditions in San Francisco's Financial District at the time created an ideal opportunity to push this idea forward.

A resolution was introduced by Supervisor Peskin requesting that the City's Real Estate Division issue a request for proposals for the site, and the Board of Supervisors unanimously passed the resolution. In January of 2019, Mayor London Breed and Supervisor Peskin announced the development opportunity.² The City's Public Works and Fire departments created specifications for the fire station design to inform developer proposals, and multiple proposals were received and subsequently reviewed by the Fire Commission. Later in 2019, the City chose Related California to redevelop the parcel.

Related California submitted two scenarios for developing the site: one was primarily residential, and the other was primarily commercial. The residential scenario would yield about 250 apartments or condos on top of the fire station, going up 21 stories. The commercial scenario included the fire station, a 200-room hotel, 40,500 square feet of office, 8,000 square feet of restaurants, and a 35,000 square foot fitness center, with the building going up only 19 stories but due to different floor heights, this scenario would be about the same height as the residential scenario. Both scenarios include a fully renovated, seismically enhanced 4-story fire station.³ The City has approved both scenarios, but as of 2022, the commercial scenario is moving forward.

The property is in the Downtown Office Zoning District, the highest intensity zoning area in San Francisco, and is where the City's most identifiable buildings are located. Related California has hired the architecture firm Skidmore, Owings, and Merrill which has designed other iconic buildings in San Francisco, to provide continuity between the new development and the general architectural character of this specific district. The area immediately around is already built out at densities that are consistent with either of Related California's proposed scenarios, and other strong development activity nearby, including proposals for higher intensity hotel, office, and housing, suggests that there is sufficient market support for this particular project.

The request for proposals issued by the City only included the fire station parcel, but Related California also acquired two adjacent parcels to provide greater design flexibility in the way that the fire station would be integrated with the private uses. This assemblage resulted in a parcel approximately 0.41 acres in size. Initially, the plan had been to build the private uses directly on top of the fire station, however in the final design, the private uses are in a separated component of the building that is suspended above the fire station with a physical gap in-between. This gap enables the fire station to meet extremely high seismic standards required of this use without having to apply these same standards to the remaining components of the building above. Had the private development been built directly on top of the fire station, the private uses would have been subject to the same seismic standards as the fire station. The cost to meet these additional and unnecessary seismic standards would have rendered the entire project infeasible.

Another critical component of this project is that regardless of which development scenario were to get built, either one would be subject to an affordable housing in-lieu fee typically only associated with a residential project. These fee revenues will contribute to funding more than 50 affordable units in nearby Chinatown. Additionally, a portion of the fees from this project will be used to preserve New

² [Mayor London Breed Announces Plan To Redevelop Fire Station 13 With Housing, 2019.](#)

³ [Project Authorization, 2021.](#)

Asia Restaurant, a legacy business on the site of the affordable housing project planned for Chinatown and which is a culturally significant business for the Chinatown community.

This project will result in providing a new modern fire station that is entirely privately financed. The fire station is projected to cost \$35 million, accounting for 19 percent of the total estimated project cost of over \$184 million, which includes the cost of acquiring the adjacent parcels.⁴ However, it should be noted that these costs may increase due to the impacts of COVID-19 supply chain issues on construction costs, but the developer is still planning to move forward. The benefit to the City comes from utilizing the very valuable air rights above the fire station, while maintaining City ownership of the fire station itself. By capturing this value, the City is allowing for underutilized space to fund needed renovations of the station, provide affordable housing fees, preserve a legacy business, and enable a suitable development appropriate to the immediate neighborhood context. The developer benefits from gaining development rights in this highly valuable market location. The significant community benefits have resulted in very little community opposition which has also enhanced the viability of this development.

The case in San Francisco is particularly relevant for Berkeley because both are subject to California's stringent seismic safety codes, but it is important to also recognize that the market conditions influencing the return for the developer are very different when comparing Fire Station 13's location and overall market context with the places in Berkeley where fire stations are located. The key considerations raised by this case study that are potentially relevant to the Berkeley Fire Department Master Plan include the following points:

1. Location and real estate market conditions are critical to the success of a public/private partnership like the one between San Francisco and Related California. The value created from the site's upzoning was significant enough for the Developer to agree to completely fund the fire station's redevelopment and to pay the housing in-lieu fees despite intending to build a commercial project not subject to such fees. This project was possible because the site's use as a single-story fire station underutilized a very valuable location in one of the densest parts of a major global city with a very high-density development pattern and very high real estate values.
2. City input on the design of the project, particularly from fire department stakeholders, is crucial to frontload on the project. Stakeholders interviewed for this case study indicated that fire department stakeholders had extensive feedback on initial preliminary designs for this project related to access, frontage, seismic standards, and efficiency needs specific to emergency services. If the developer had waited to verify the needs of the fire department until later in their own design process, there could have been many wasted costs on engineering and architectural fees due to redesigns that would have been necessary. By ensuring that the needs of the fire department are prioritized at the beginning design stages, all stakeholders involved can save time and money from avoiding oversights and extensive redesigns.
3. When redeveloping an existing fire station with a mixed-use project that will include a new fire station, it is critical to create a plan to prevent disruption of services. Not planning this in advance can disrupt service and potentially be very costly. The San Francisco project was able to address this challenge because the Fire Department already had funding and plans in place for maintaining fire operations when a fire station is being rebuilt due to other stations throughout the city also undergoing renovations and seismic improvements. The

⁴ [San Francisco Business Times, 2021.](#)

funding and plans for continuous operations are expected to still be available when construction commences for the new Fire Station 13.

The Station at Potomac Yard: Alexandria, VA

Potomac Yard includes approximately 295 acres and is located in northeastern Alexandria, Virginia just south of downtown Washington D.C. The Station at Potomac Yard, the City's mixed-use fire station and housing development located at 650 Maskell Street, was one of the first developments in Potomac Yard. The overall Potomac Yard site had been a rail yard that began operating in 1857. Rail operations ceased in 1987, and the property owner at the time worked with the City to begin envisioning different uses for this site as part of the citywide comprehensive planning process, which ultimately was not adopted, and at the same time, the community began pushing for a mixed-use neighborhood.

In 1992, the Potomac Yard Small Area Plan was approved by the Alexandria city council, establishing the vision guiding residential and commercial development in the area. The 1992 Area Plan allowed for approximately 12 million square feet of development with a combination of office, retail, hotel, and residential uses divided into sub-districts or "land bays" with each land bay including its own land use mix. The property owner proposed two initial ideas for this site including a football stadium and the United States Patent and Trade Office, but neither of these proposals passed the planning commission. Ongoing discussions with stakeholders and the community regarding allowable development prompted an update to the area plan by the late 1990s which ultimately lowered the overall allowable development capacity to approximately 8 million square feet.

Following the two failed proposals submitted by the property owner, in 2004 two major developers joined forces to purchase the land and create the Potomac Yard Development LLC. The master developer and the Potomac Yard Planning Commission were beginning work to realize development plans by 2005.⁵ At the time of initial plan adoption, there was very little development in the areas immediately surrounding Potomac Yard except for a few small apartment complexes and a bit of freestanding retail, but the planning process, which had lasted nearly a decade, garnered strong community and market interest. The zoning for the Potomac Yard site was designated as a Coordinated Development District which was unique compared to the nearby areas which were primarily zoned for various levels of residential intensity with much of the city being zoned as low-density residential.

By 2006, the master plan had evolved to include enough development potential to warrant the need for additional on-site emergency services. In particular, there was a need identified for a fire station to serve the new population with acceptable response times. The developers agreed to provide an approximately **one-acre parcel** of land adjacent to the neighborhood and \$6.6 million in financial support for the construction of a new fire station that could support the required emergency service activities. This decision was beneficial to the developer because, otherwise, they would have needed to reconfigure the master plan design to accommodate the emergency services within the area, instead of directly adjacent to it, resulting in a reduction in developable area or they would have needed to reduce development overall in order to meet demand with existing emergency services. This also allowed for the developer to proceed with their planned timeline and project phasing. The fire station was planned to be 21,953 square feet including four bays, offices, day spaces, operational

⁵ For more information on the development history of Potomac Yard, see [History of Land Use and Planning in Potomac Yard](#), [North Potomac Yard Small Area Plan Appendix I](#), and [Building The Station at Potomac Yard: A Model for Public/Private Partnership](#).

support spaces, on-site training features, private bunk rooms and lockers for 15 fire fighters, and 20 parking spaces in a below grade garage.

Government stakeholders saw the opportunity to gain two benefits with one development by utilizing the air space above the fire station to build residential units. Eventually, this concept evolved into using these air rights to provide additional affordable housing for the city. Not only did the land donation provide cost savings for undertaking an affordable housing development, but it was also an opportunity to build up instead of further out. This was important to the community for maintaining the mixed-use urban feel of the planned development. The plan was to build four stories of housing directly over the fire station with a small amount of ground floor commercial space. To mitigate concerns regarding noise impacts on future residents, the design included a concrete buffer between the fire station and the residential space and specific window and window frame designs. Note that unlike Fire Station 13 in San Francisco, the Station at Potomac Yards did not have to meet very high seismic safety

The Station at Potomac Yards was built in 2009 as a 100 percent subsidized housing development over the fire station. It includes 64 one-, two-, and three-bedroom units, a community meeting space, garden terrace with a community garden that provides free produce for residents, and underground parking. Forty-four of the units are set aside for households earning less than 60 percent Area Median Income (AMI) with the remaining units affordable to households at or below 80 percent AMI, and housing vouchers are accepted. The entire project, including the housing, fire station, and commercial space, is LEED and Earth Craft certified.

Getting the project built was a successful public private partnership between the City of Alexandria, Potomac Yards Development LLC, and the Alexandria Housing Development Corporation. Today, the housing is operated and maintained by the Alexandria Housing Development Corporation, and the fire station is operated and maintained by the City of Alexandria. The two entities operate using a condominium governance structure but with some shared responsibilities and spaces. As shown in FIGURE 1, the project was able to utilize a variety of sources of financing and funding, and FIGURE 2 demonstrates how the financial resources were allocated. Notably, this project was the very first use of the Low-Income Housing Tax Credits (LIHTC) in Alexandria. Additionally, the Developer donated the land for this project which, although not captured in the sources or uses below, is a significant contribution to the feasibility of the project given that the value of the land at that time was approximately \$3 million.

FIGURE 1. SOURCES OF FUNDING AND FINANCING

Low Income Housing Tax Credit Equity (a)	\$8,626,657
Virginia Housing Development Authority Construction/Permanent Loan	\$8,350,000
Potomac Yards Development LLC Grant for Fire Station (b)	\$6,600,000
Potomac Yards Development LLC Voluntary Affordable Housing Contribution	\$6,000,000
City of Alexandria Loan to Alexandria Housing Development Corporation (c)	\$1,900,000
City of Alexandria Grant for 4 th Fire Bay LEED Certification	\$1,000,000
Alexandria Housing Development Corporation Deferred Developers Fee	\$880,000
Potomac Yards Development LLC Lease Income	\$363,000
Potomac Yards Development LLC Contribution to Site Work and Open Space	\$275,000
Total	\$33,994,657

Source: City of Alexandria.

Notes:

- (a) Awarded \$1,027,000 and sold at 0.84
- (b) This "grant" is a contribution from the developer.
- (c) Included additional affordable housing contribution from Potomac Yards Development LLC and City of Alexandria Capital Improvement Project Funds.
- (d) These figures are not inflation adjusted.

FIGURE 2. USES OF FUNDING AND FINANCING

Construction Hard Costs (a)	
Housing (b)	\$18,297,138
Fire Station	\$9,200,000
Retail	\$800,000
Soft Costs (c)	\$2,392,519
Architectural and Engineering Costs (d)	\$1,280,000
Alexandria Housing Development Corporation Developer Fee	\$1,750,000
Tax Credit and Loan Fees	\$275,000
Total	\$33,994,657

Source: City of Alexandria.

Notes:

- (a) Includes costs for underground parking garage with 142 spaces at \$51,000 each.
- (b) Cost per residential unit was approximately \$387,000.
- (c) Soft costs include construction management, permits and fees, insurance, transaction costs, legal, accounting, reserves, and more.
- (d) Architectural and engineering costs include consultant studies, value engineering, contract administration, and LEED AP.
- (e) These figures are not inflation adjusted. Construction costs have risen significantly since the time of this project.

Key findings from this case study provide a few lessons learned for other mixed-use fire station projects, including:

1. Developer contributions in the form of land donations and financial support made a significant impact on the ability to fund this project. This is an especially important consideration when including affordable housing units due to the costliness and complexity of building these units. Without the land donation, millions of dollars in additional funding would have been needed in order to purchase nearby land, or development capacity would have needed to be reduced.
2. Consideration of the appropriate parking ratios are important for making this type of project work financially. According to stakeholders interviewed for this case study, the project may have saved money by spending more time considering the correct parking needs for their project instead of applying the citywide parking ratio that was in place at that time. This project is widely considered overparked.

3. If incorporating affordable housing units, careful consideration of the affordability levels is important. Stakeholders interviewed for this study indicated that they decided to include” units priced at the 80 percent AMI level, but later learned that there was greater demand units at the 60 percent AMI level. These affordability thresholds impacted their ability to qualify for certain governmental financing., Ultimately, the project may have received additional funding if it had incorporated more deeply affordable units instead of workforce units.
4. Stakeholders in this case study also recommend that if utilizing a split governance structure, it is beneficial to consider responsibilities for operations and maintenance of shared spaces and building elements upfront in order to appropriately balance costs.

Lincoln Towers: Wilmington, DE

Lincoln Towers is a 100 percent affordable housing development built on top of a fire station located at 1800 N Dupont Street in the Trolley Square neighborhood of Wilmington, Delaware. Previously, this 0.7-acre site was public housing that was built in the 1970s, but it was in very poor condition by the early 2000s. The public housing on this site was demolished in 2010, and the new development broke ground in 2011. The site was considered by government officials and community stakeholders as an important spot for maintaining affordable housing. The addition of the fire station was considered a prime opportunity to address two community needs in one unified project. The fire station replacement was needed because the one serving that area, located just a few blocks away, had been in continuous operation since the 1800s and needed to be adapted to modern day operational needs.

The site is located in the lively Trolley Square neighborhood which has easy access to restaurants, parks, transit, and is generally considered one of the most desirable neighborhoods in Wilmington. This site is zoned R-5-C: High density residential apartments. The surrounding area is zoned for neighborhood shopping with some residential zoning specific to rowhouses. According to data from the real estate data service CoStar, at the time of this development there was very little active construction of multifamily development projects in the area, but of the developments that were occurring, most were relatively large, with more than 100 units each. The majority of the other developments in the area at this time were retail uses. However, because this was a public housing redevelopment, market conditions did not have an impact on the financial viability or need for this project.

The 8-story development includes 88 one- and two-bedroom apartments for low-income seniors ages 62 and older. The housing is a mix of traditional public housing and units that are set aside for Section 8 voucher holders. Amenities for residents include a fitness center, computer lab, community space for supportive and social services, and underground parking. The fire station component of the development accommodates 16 firefighters and four battalion chiefs. The building is a “green” development in that it uses high energy efficiency systems and materials throughout.

Lincoln Towers is jointly operated with the City of Wilmington managing the fire station and the Wilmington Housing Authority managing the housing units. The project was developed by Michaels Development Company and the Wilmington Housing Authority utilizing a number of funding streams from the City of Wilmington, Prestige Affordable Housing Equity Partners, Delaware State Housing

Authority, and the United States Department of Housing and Urban Development (HUD). The development cost approximately \$27.5 million and utilized the following sources⁶:

- Approximately \$10 million in “green grant” money from the American Recovery and Reinvestment Act
- Approximately \$3.5 million from the City of Wilmington for the fire station
- 4% Low Income Housing Tax Credits
- Tax exempt bonds issued by the City of Wilmington
- Federal Home Loan Bank Funds
- Wilmington Housing Authority Replacement Housing Factor Funds, which are funds available from HUD for public housing authorities that have demolished public housing for the sole purpose of developing new public housing

Key take aways from this case study include the following:

1. Having the publicly owned land provided an important opportunity to build a new fire station in addition to replacing the public housing.
2. The grant from the American Recovery and Reinvestment Act incentivized the green building, but it was also essential to the project’s success.
3. Other funds were available to build this project because it was a public housing replacement. Without these sources, the project could not have been built. A layered funding approach, which is typical for affordable housing projects, was important here because there was no “value” to be captured from a private development component.

⁶ [Affordable Housing Finance, 2014](#); [Delaware Business Now, 2013](#).

May 16, 2023 – *Berkeley City Council Presentation DRAFT*

Berkeley Fire Department Master Plan

Findings Presentation

Siegel & Strain Architects
Mary McGrath Architects



BFD Studies and Reorganization

January 2020 Fire Chief Staff Report which identified need to study Operations, Response Times, and create a Facilities Master Plan.

- The draft Standards of Coverage analysis and report prepared by Citygate Associates (first ever assessment)
- Internal Operations Reorganization discussions and plan
- BFD Facilities Master Plan, prepared by Siegel & Strain Architects and Mary McGrath Architects, 2022 - 2023



Purpose of BFD Facilities Master Plan

- Evaluate aging and outdated facilities
- Identify operational changes and impact on facilities
- Integrate health, safety and personnel need

Goals of BFD Facilities Master Plan

- Make the most conservative improvements possible that meet goals
- Improve public safety by addressing current and projected needs
- Comply with industry standards and align with best practices
- Support evolved mission now and into the future

Presentation Outline

- Facility Background
- Operational Changes
- Methodology
- Site Studies and Recommendations
- Priorities and Phasing



Original Facilities

BFD is operating in facilities built between 1960 and 2010 with the majority built in the 1960's. Most were designed as neighborhood fire stations with:

- A single fire engine
- Three personnel per shift
- Limited space for expansion, storage, and future needs.



Operational Changes – Evolving Mission of BFD

1980	1990s	2000	2010	2015-2020
Structure Fires (Low Rise)	Structure Fires	Structure Fires	Structure Fires	Structure Fires
Fire Prevention	Fire Prevention	Fire Prevention	Fire Prevention	Fire Prevention
	Emergency Medical	Emergency Medical	Emergency Medical	Emergency Medical
	Disaster Preparedness	Disaster Preparedness	Disaster Preparedness	Disaster Preparedness
	Hazardous Materials	Hazardous Materials	Hazardous Materials	Hazardous Materials
	Wildland Firefighting	Wildland Firefighting	Wildland Firefighting	Wildland Firefighting
		Weapons of Mass Destruction	Weapons of Mass Destruction	Weapons of Mass Destruction
		Vehicle Extrication	Vehicle Extrication	Vehicle Extrication
		Technical Rescue	Technical Rescue	Technical Rescue
			Active Shooter	Active Shooter
			Water Rescue Swimmer	Water Rescue Swimmers
				Routine Urban Interface Firefighting
				Vocational Education
				Boat Operations
				Pandemic Response
				Community Response Medicine
				EV Fires & Battery Management
				<u>High Rise/Tall Building Firefighting</u>

Operational Changes - Apparatus and Specialty Units

Since the 1960's Berkeley's fire operations and equipment have changed.

- Firefighters have moved from the tailboard to inside, seated and belted
- Addition of Ambulance Service with interns
- Addition of Wildfire Urban Interface program with crossed staffed units (Type VI and water tankers)
- Addition of specialty equipment and units including air units, hazardous materials units, ATV's, and a Water Rescue program.



Modified Facilities

Since their original construction in the 1960s, the older stations have been renovated and changed to accommodate:

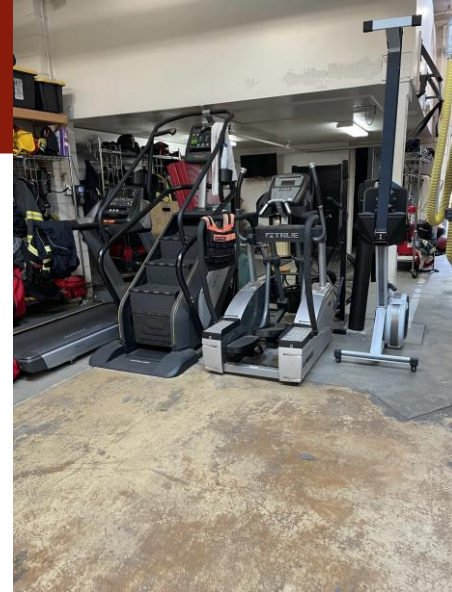
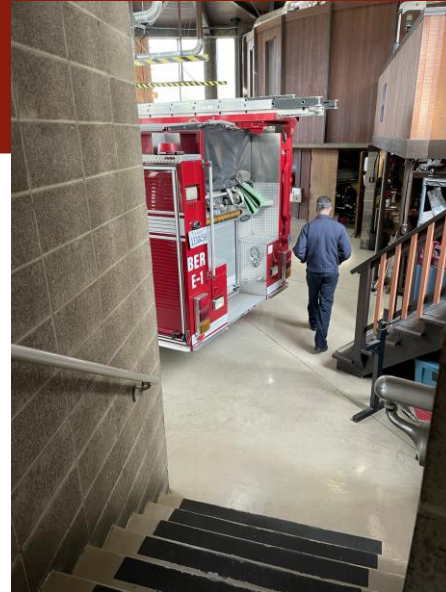
- Seismic upgrades in the 1990's
- Additional units and staffing without adding or expanding the spaces for privacy, health and safety protocols.
- Ongoing minor upgrades and maintenance including lighting, kitchens, restrooms and the like.



Outdated Facilities

Facilities are approaching end of useful life.

- Limited expansion space at stations
- Stations do not meet health safety standards
- Stations are not hazards ready
- Hose drying towers are obsolete
- Stations do not support the evolving culture of the fire department



Operational Changes - Response and Delivery Changes

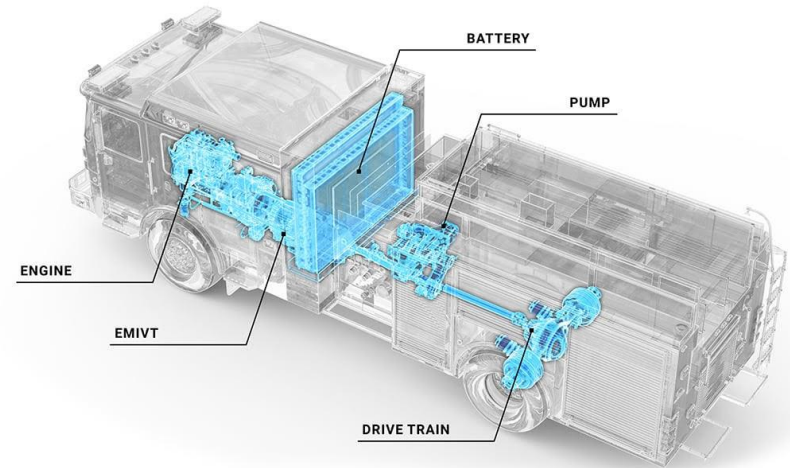
The Citygate Standards of Coverage report and Internal Operations Reorganization efforts identified need for additional operational changes and space accommodations for:

- Additional Ambulances
- Community Paramedic Program (Mobile Integrated Paramedic, MIP)
- Expanding administrative for WUI and EMS
- Larger dispatch center to allow for triaging of calls and pre-arrival instructions (requires fire to vacate 2100 HQ)
- Future Battalion Chief (Recommended by Citygate, proposed at Station 1)
- Increased staffing to address changing risk/demand from climate change & development

Operational Changes - Electrification

The City and State are moving towards all electric buildings and vehicles.

- New Stations are required to be all electric.
- Electric charging stations will be necessary for BFD electric vehicles and apparatus, and for staff's personal electric vehicles.
- Public safety buildings will need to function off the grid in emergency situations and power outages.



Health, Safety, and Personnel – Decontamination

Significant health and safety concerns related to carcinogens from turnout gear and equipment, and the overall air quality at Fire Stations have long been identified as unsafe. Since the 1960's the fire service has started to implement best practices to combat this issue:

- Dedicated turnout rooms with personnel decontamination and turnout cleaning facilities.
- Reorganized path of travel to and from the apparatus bay for decontamination between each call. (Known as the "Hot, Warm and Cool" zone organization.)
- Hands-free medical cleanup facilities
- Dedicated physical fitness rooms (not in apparatus bays), and airlock air separation between apparatus bay and living/office quarters
- Direct capture or similar vehicle exhaust systems in apparatus bays (Completed in 2001)



Health, Safety, and Personnel – Inclusion & Privacy Considerations

Since the 1960's there have been significant changes in the workforce and work environment driving the need for increased privacy in the fire stations in the living and office environment:

- Gender neutral restrooms
- Single occupancy bedrooms
- Dedicated Captains' offices
- Accessible accommodations



Methodology

The planning team's approach for developing the master plan was to:

1. Study existing facilities and review provided construction drawings;
2. Document the fire department's program needs;
3. Lay out the program needs over the existing sites and buildings plans;
4. Initial planning efforts attempted to accommodate programmatic needs through renovation;
5. When renovation was not possible, the design team studied replacement options.

High level findings:

- **The new Mobile Integrated Paramedic program (or MIP) and additional ambulances could not be accommodated on existing sites**, whether renovation or new construction. This program element was removed from the station scope due to space constraints and needs to be located at a different (new) facility.
- Reserve apparatus take up a lot of space at stations. These could be relocated to a new warehouse location which could also facilitate ongoing maintenance.
- Parking was a variable for the replacement options. Some sites accommodate parking better than others.

Renovation Approach - Space Addition and Arrangement Priorities

- Provide private sleeping rooms for all on-duty staff
- Provide private gender-neutral restrooms and increase numbers based on added staff.
- Provide dedicated Turnout storage, decontamination and proper paths of travel
- Provide dedicated Fitness Room (out of apparatus bay/exhaust)
- Provide office space for on-duty supervisor
- Increase size of kitchen, dining and dayroom to accommodate added staff.
- Add apparatus bays for future units (Station 1 and 4)



Replacement Approach – New Construction

- Capture 100% of operational program including new units apart from parking.
- Add as much parking as possible, including options for fully parked stations.



Mixed Use Case Study

As part of the master plan, economics planner Strategic Economics researched three mixed-use projects with affordable housing and a fire station.

Fire Station 13, San Francisco, CA



Potomac Yard, Alexandria VA



Lincoln Towers in Wilmington, DE



Mixed Use Case Study Findings

Strategic Economics found that given the costs associated with the seismic safety requirements for fire stations in California, pairing affordable housing with a fire station is not cost-effective in Berkeley.

- Developer contributions to funding mixed-use fire stations are only possible when the private development generates enough value to pay for the extra construction costs without impacting expected rates of return for the overall project.
- Each project studied benefitted from having other funding sources already in place to offset some costs.
- California's seismic building codes are extremely stringent for public safety buildings making them difficult (and expensive) to pair with other uses.

Site Studies & Recommendations

- **Stations 1 – 6**
- **Division of Training**
- **Fire Department Headquarters**



Fire Station Space Needs

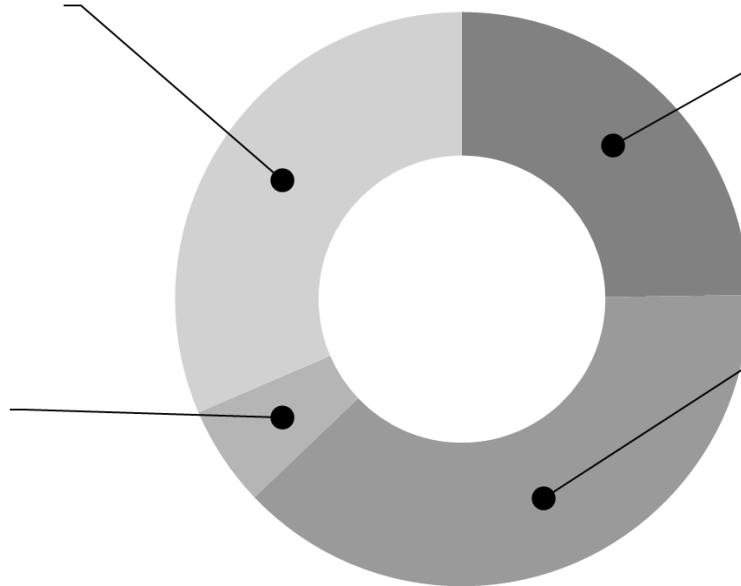
TYPICAL STATION AREA BREAKDOWN

UTILITY/SUPPORT AREAS

- 31% > Mechanical Room
> Electrical Room
> Communications
> Equipment Room
> Circulation
> Storage

OFFICE/ PUBLIC SPACE

- 6% > Public Lobby and Restroom
> Watch Office
> Supervisor Office



LIVING QUARTERS

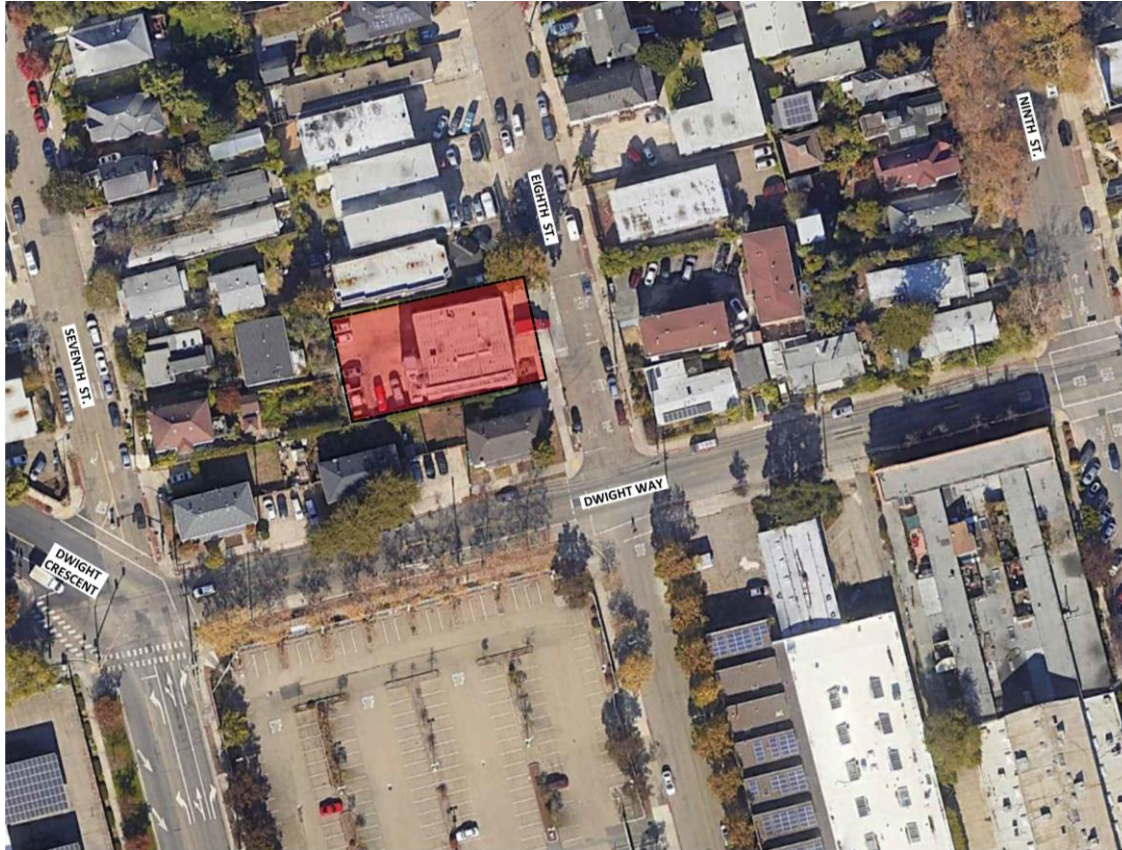
- 25% > Kitchen
> Dining
> Day Room
> Bedrooms
> Bathrooms
> Laundry
> NEW Fitness Room 4% of total

APPARATUS BAYS + SUPPORT

- 38% > Apparatus Bay
> Medical Supply
> Clean Up
> Workshop
> Restroom
> NEW Turnout Gear Room 7% of total

Station 1 Overview - 2442 Eighth Street

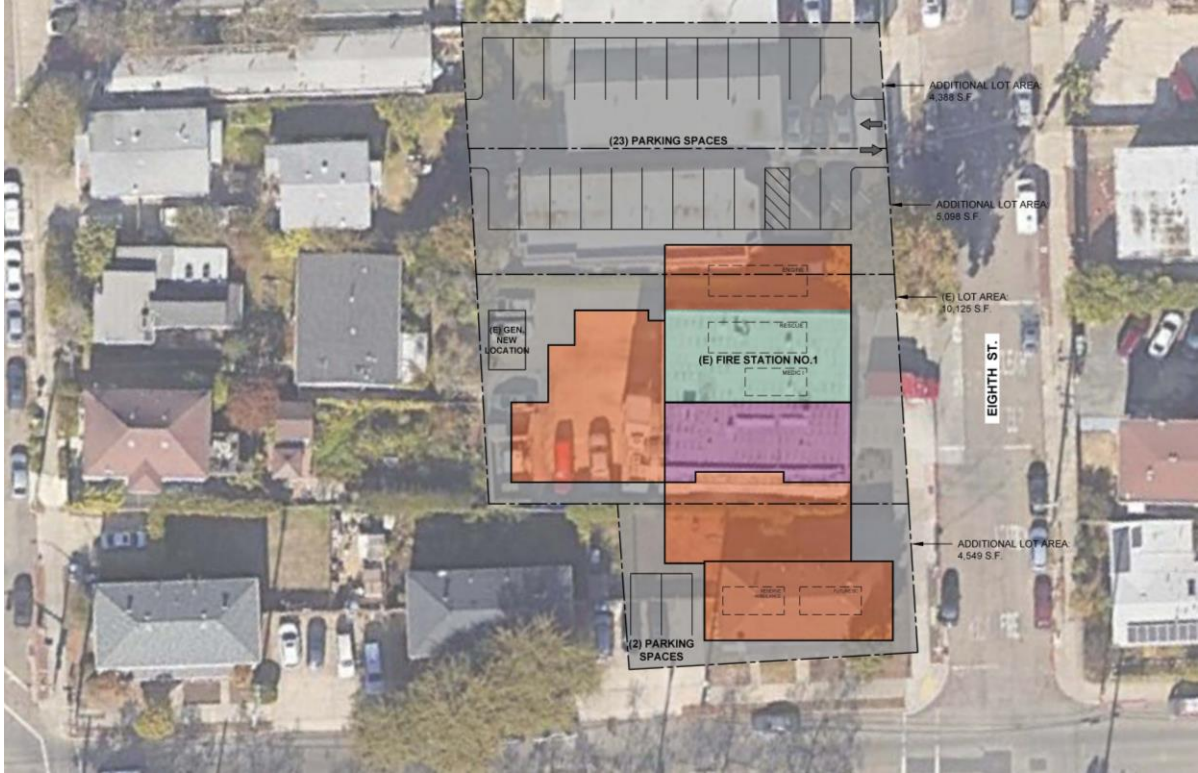
Existing – 5,410 sf 2 story building



Fire House Company Make-up – Staffing Per Shift	Current	Need
Engine 1 – Captain, Engineer, Firefighter/Paramedic	3	4
Medic 1 (Ambulance) – Medic, EMT	2	2
Future Additional Ambulance/Future Mobile Integrated Paramedic (MIP)	0	2
Future Battalion Chief	0	1
Medic Trainee	1	1
Ambulance – Reserve	0	0
TOTAL CURRENT AND PLANNED STAFFING	6	11

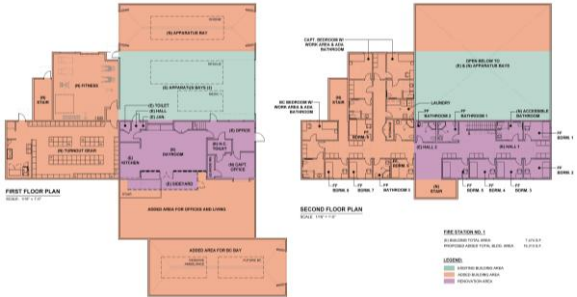
Station 1: Option 1

15,700 sf 2 story building renovation & additional area
 Purchase three adjacent properties, expand and renovate station.



SITE / FIRST FLOOR DIAGRAM

ROM Project Budget \$34-40M

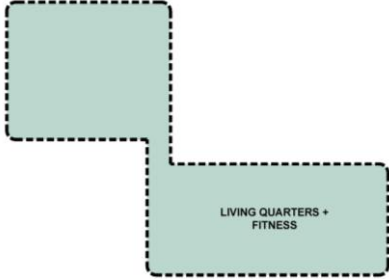
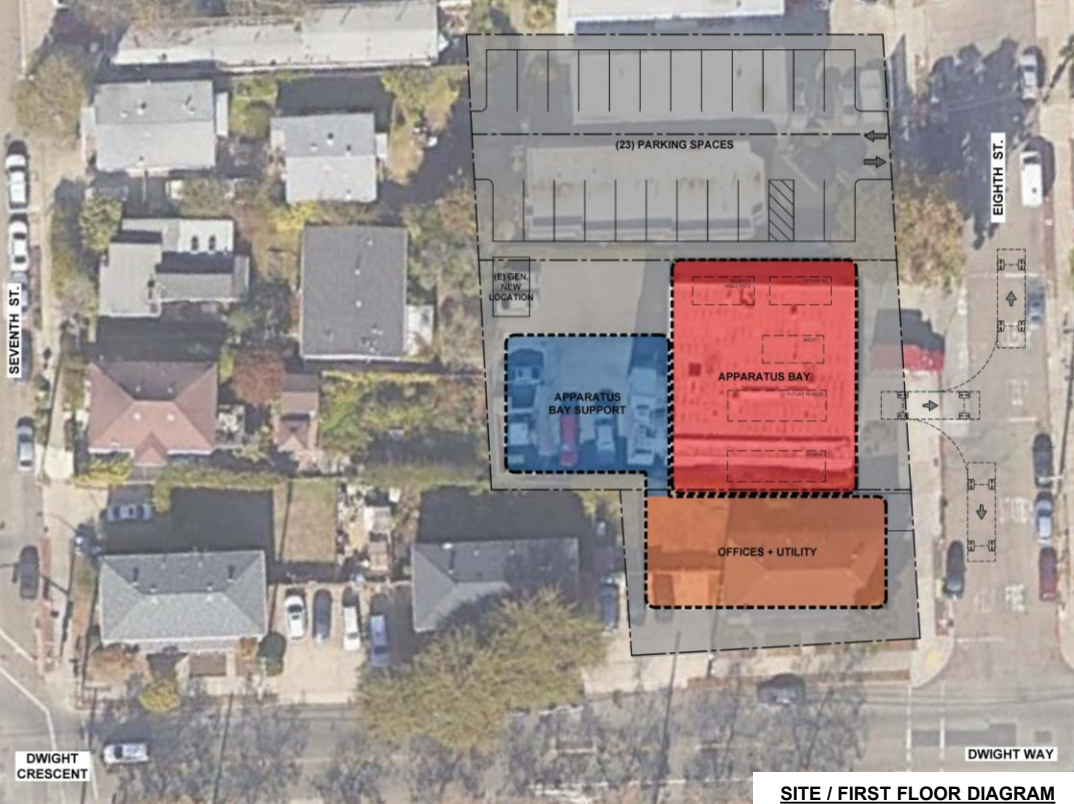


LEGEND:
 ■ EXISTING BUILDING AREA
 ■ ADDED BUILDING AREA
 ■ RENOVATION AREA

Station 1: Option 2

ROM Project Budget \$32-37M

15,700 sf 2-story Fire Station. Replace existing station and replace with new. Purchase three properties and provide surface parking.



SECOND FLOOR DIAGRAM
SCALE: 1/32" = 1'-0"

SITE / FIRST FLOOR DIAGRAM

Station 1: Option 3

15,700 sf 2-story building & basement parking
Replace existing station and replace with new. Purchase three properties and provide basement parking and drive through bays. Meets program.

ROM Project Budget \$40-45M

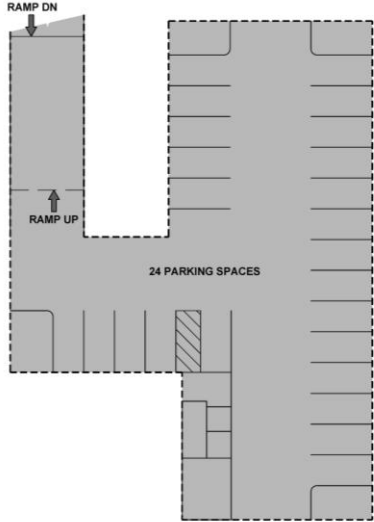


DWIGHT WAY **DIAGRAM**



SECOND FLOOR DIAGRAM

SCALE: 1/32" = 1'-0"



BASEMENT FLOOR DIAGRAM

SCALE: 1/32" = 1'-0"

Station 1: Option 4

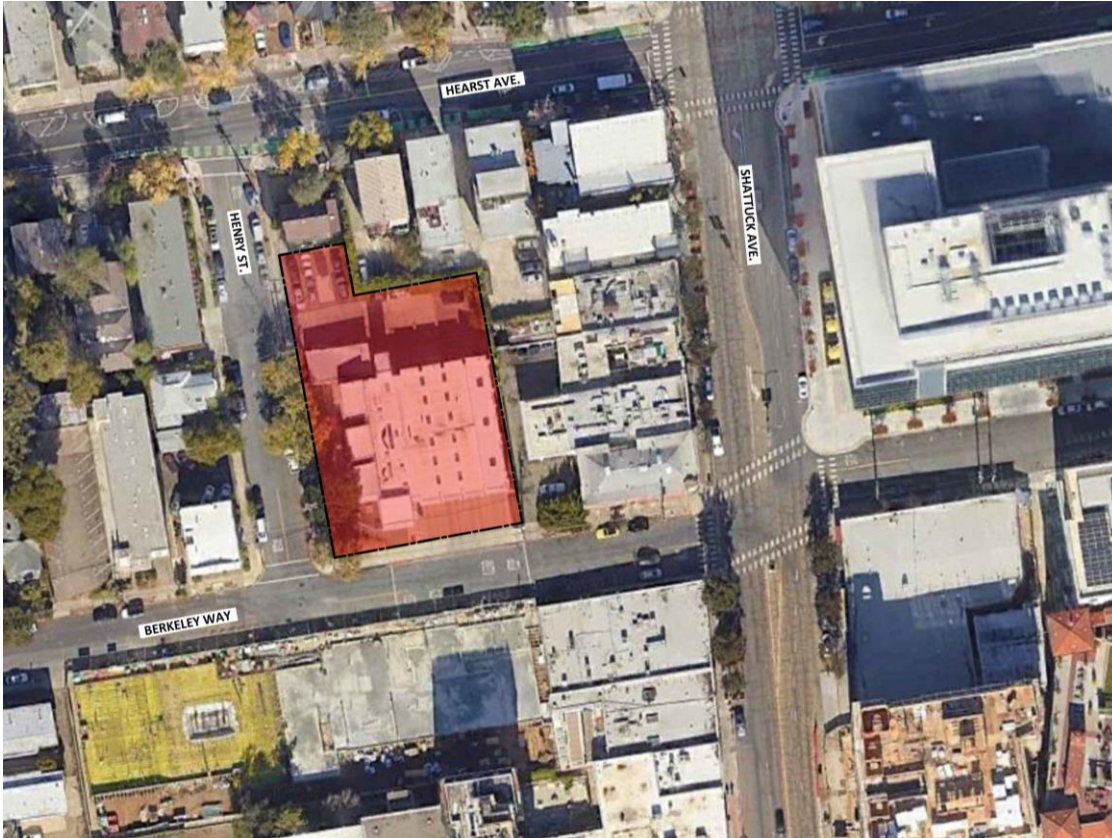
ROM Project Budget \$42-47M

NEW LOCATION– 15,700 sf 2 story building, plus parking.
Purchase new property and replace station.



Station 2 Overview - 2029 Berkeley Way

Existing – 13,598 sf 2 story building



Fire House Company Make-up – Staffing Per Shift	Current	Need
Truck 2 – Captain, Engineer, Firefighter/Paramedic	3	4
Engine 2 – Captain, Engineer, Firefighter/Paramedic	3	4
Medic 2 – Medic, EMT	2	2
Medic Supervisor	1	1
Battalion Chief	1	1
Medic Trainee	1	1
Type VI 4x4 - Cross Staffed	0	0
Hazardous Materials Unit – Cross Staffed	0	0
Truck – Reserve	0	0
Ambulance – Reserve	0	0
TOTAL CURRENT AND PLANNED STAFFING	11	13

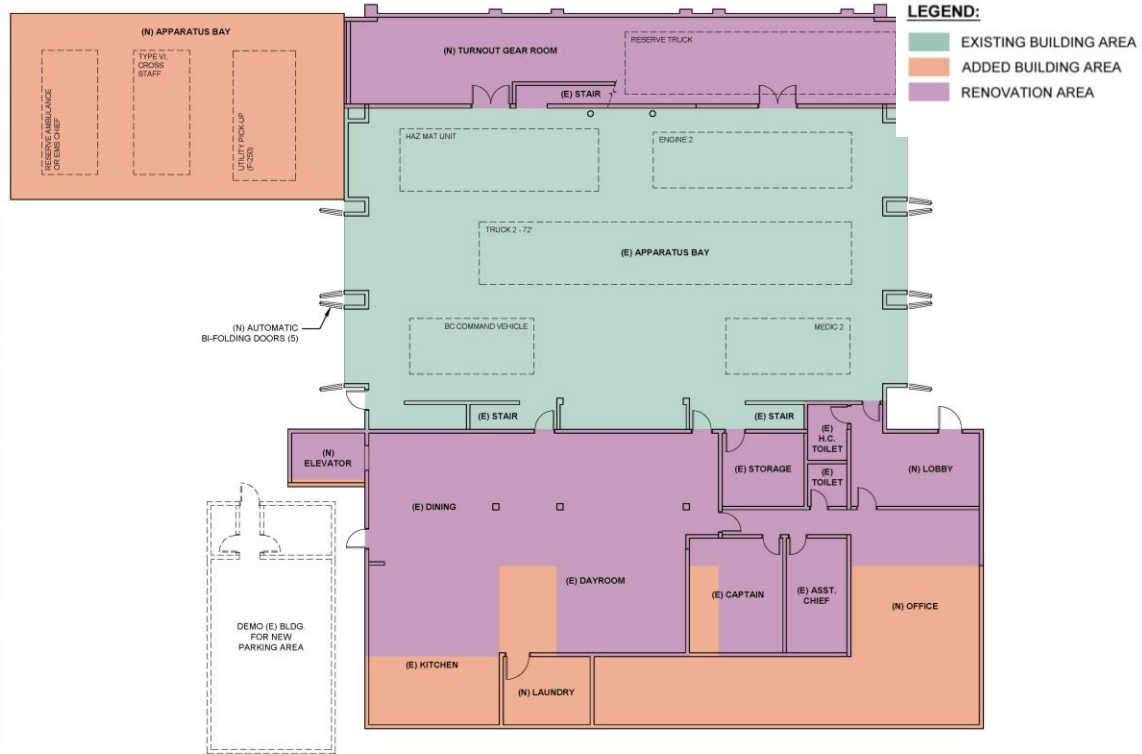
Station 2: Option 1

21,000 sf 3-story building. Renovate existing station add 3rd level. Parking and adjacency requirements not met.

ROM Project Budget \$35-40M



SITE/FIRST FLOOR DIAGRAM
SCALE: 1/64" = 1'-0"

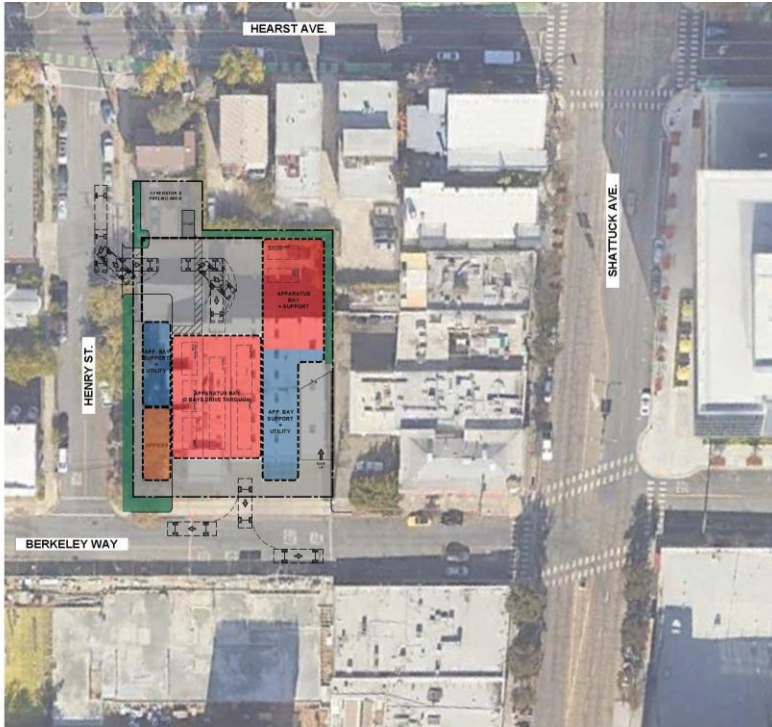


FIRST FLOOR DIAGRAM
SCALE: 1/16" = 1'-0"

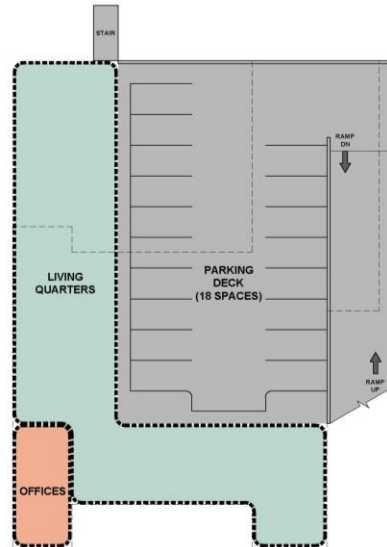


Station 2: Option 2

21,000 sf 3 story building. Replace with three story station including rooftop parking. Parking requirement not met.



SITE/FIRST FLOOR DIAGRAM
SCALE: 1/64" = 1'-0"



SECOND FLOOR DIAGRAM
SCALE: 1/32" = 1'-0"



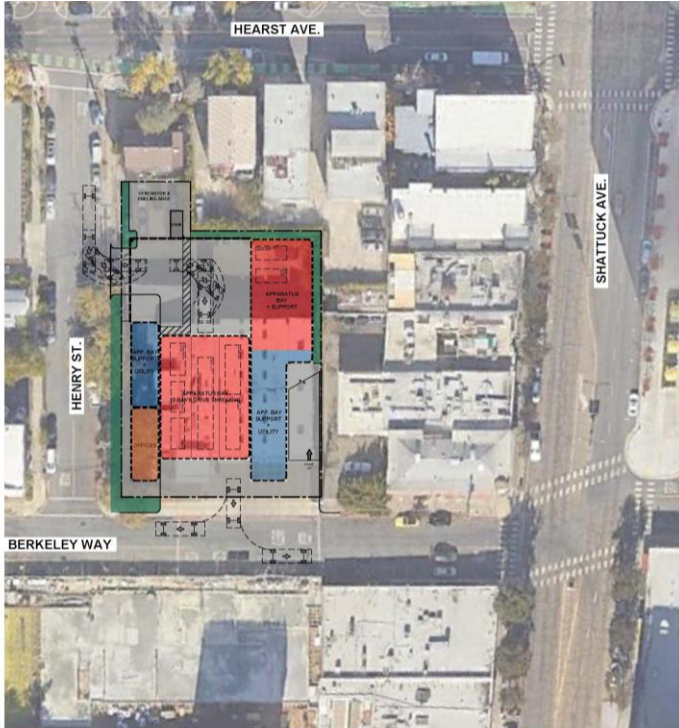
THIRD FLOOR DIAGRAM
SCALE: 1/32" = 1'-0"



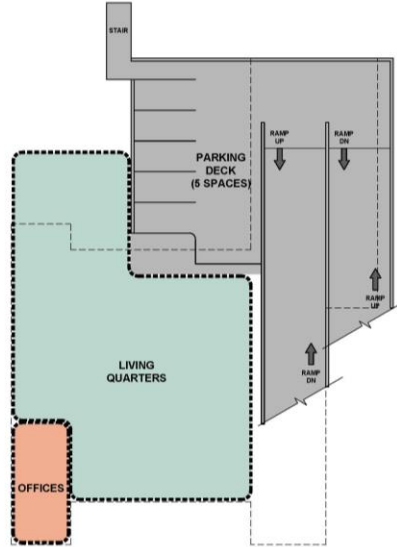
Station 2: Option 3

ROM Project Budget \$51-56M

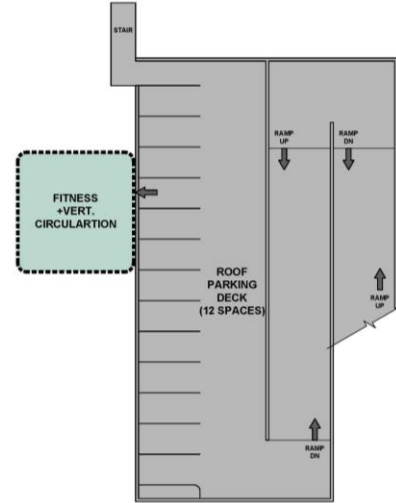
21,000 sf 3 story building. Replace with three story station.
Includes two levels of rooftop parking.



SITE/FIRST FLOOR DIAGRAM
SCALE: 1/84" = 1'-0"



SECOND FLOOR DIAGRAM
SCALE: 1/32" = 1'-0"

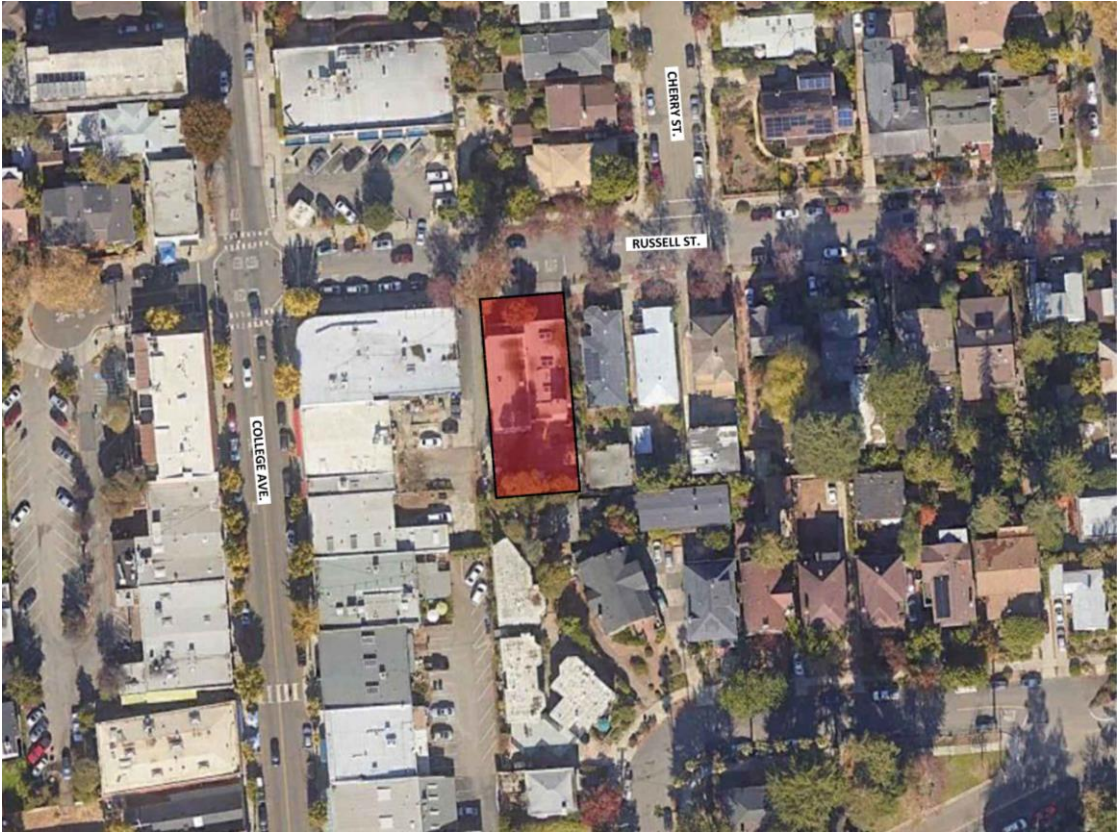


THIRD FLOOR/ROOF DECK DIAGRAM
SCALE: 1/32" = 1'-0"



Station 3 Overview - 2710 Russell Street

Existing – 5,582 sf 2 story building

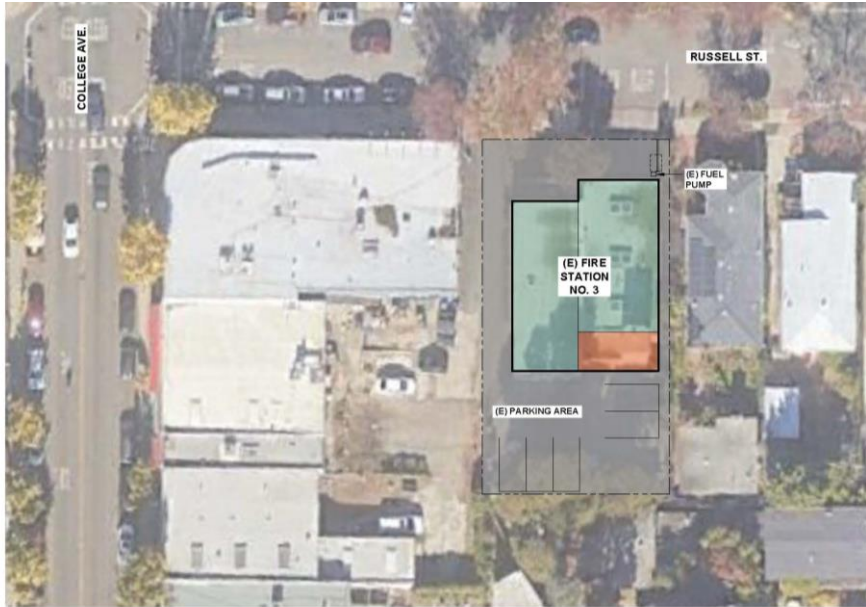


Fire House Company Make-up – Staffing Per Shift	Current	Need
Engine 3 – Captain, Engineer, Firefighter/Paramedic	3	4
Medic 3 (Ambulance) – Medic, EMT	2	2
Medic Trainee	1	1
Ambulance – Reserve	0	0
TOTAL CURRENT AND PLANNED STAFFING	6	7

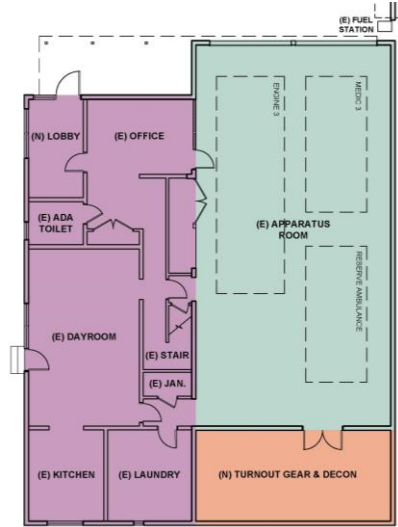
Station 3: Option 1

ROM Project Budget \$12-16M

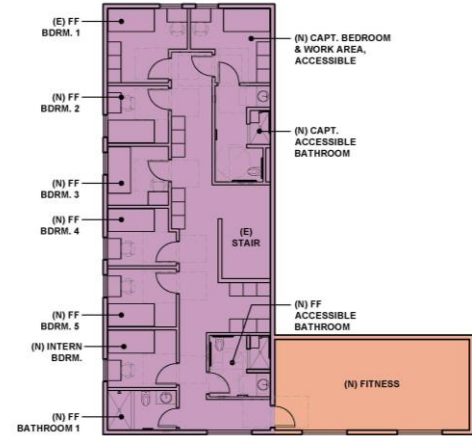
6, 193 sf 2 story building
 Renovate and reconfigure station to add Turnout and Fitness



SITE PLAN DIAGRAM
 SCALE: 1/32" = 1'-0"



FIRST FLOOR PLAN
 SCALE: 1/16" = 1'-0"



SECOND FLOOR PLAN
 SCALE: 1/16" = 1'-0"

Station 4 Overview - 1900 Marin Avenue

Existing – 5,341 sf 2 story building

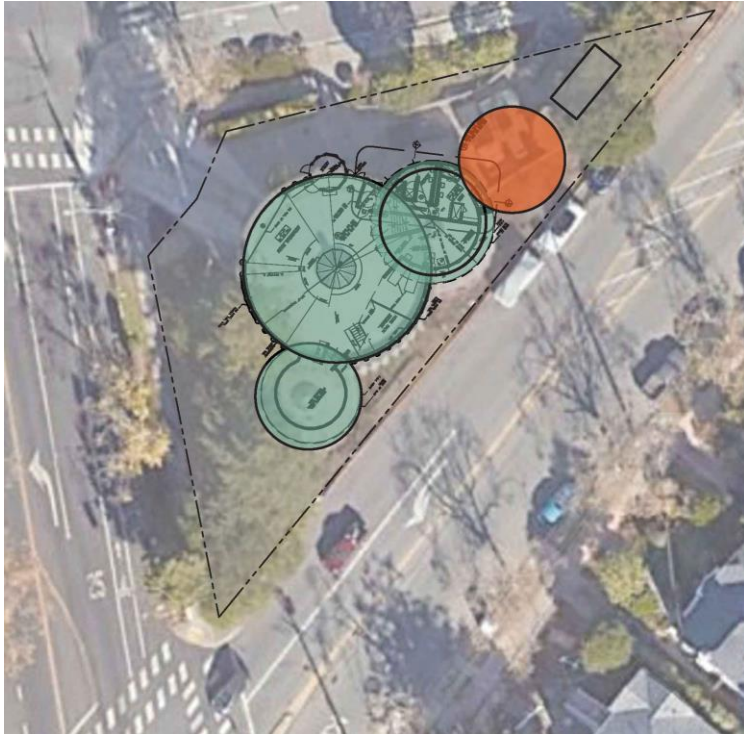


Fire House Company Make-up – Staffing Per Shift	Current	Need
Engine 4 – Captain, Engineer, Firefighter/Paramedic	3	4
Future Ambulance	0	2
Future Medic Intern	0	1
Reserve Engine	0	0
TOTAL CURRENT AND PLANNED STAFFING	3	7

Station 4: Option 1

6,941 sf 2 story building. Addition to add turnout and fitness. Does not meet need to add ambulance at this location. Parking and privacy goals not met.

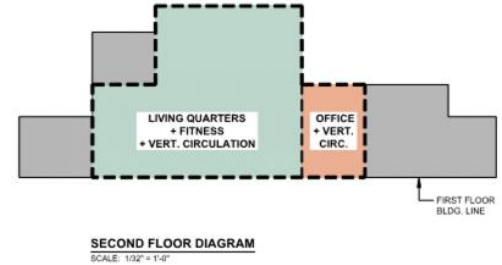
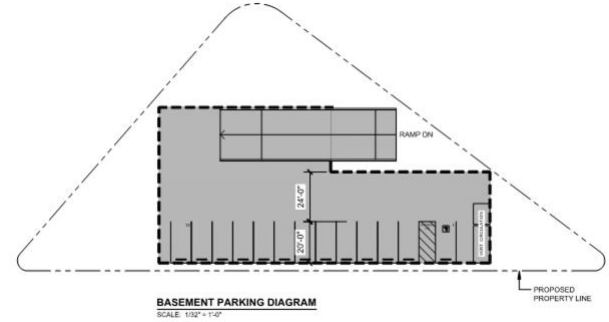
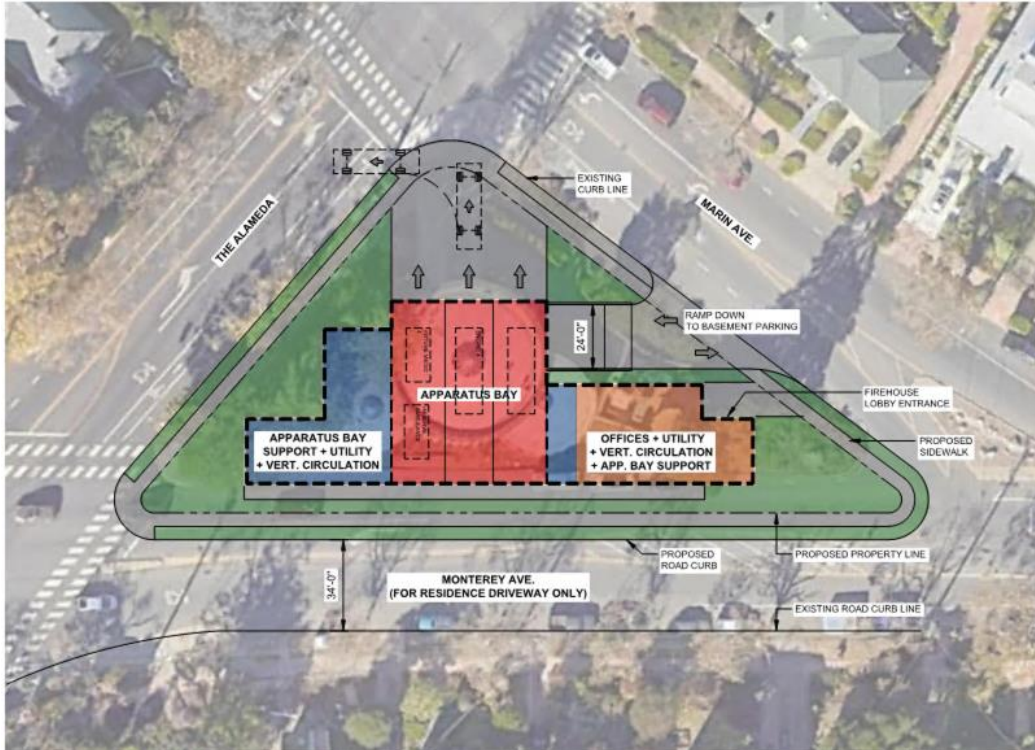
ROM Project Budget \$4-6M



Station 4: Option 2

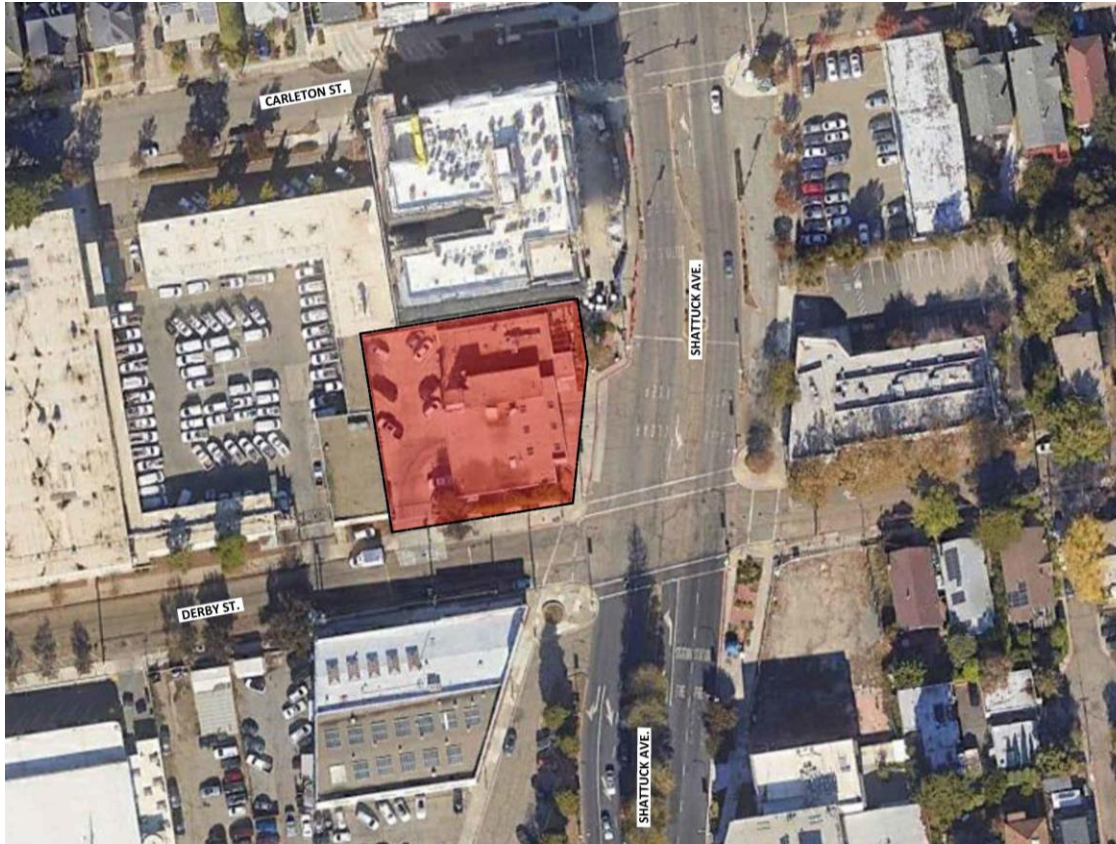
12,800 sf 2 story building. Expand site and add basement parking. Replace station to add new ambulance and meet safety requirements.

ROM Project Budget \$36-41M



Station 5 Overview - 2680 Shattuck Avenue

Existing – 9,369 sf 2 story building



Fire House Company Make-up – Staffing Per Shift	Current	Need
Truck 5 – Captain, Engineer, Firefighter/Paramedic	3	4
Engine 5 – Captain, Engineer, Firefighter/Paramedic	3	4
Medic 5 – Medic, EMT	2	2
Medic Intern	1	1
Type VI 4x4 - Cross Staffed	0	0
Engine – Reserve	0	0
Utility Pick-up (F-250)	0	0
TOTAL CURRENT AND PLANNED STAFFING	9	11

Station 5 : Option 1

ROM Project Budget \$18-23M

17,000 sf 2 story building
 Reconfigure and expand station. Parking not met.

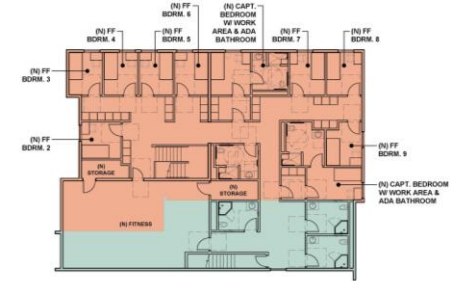


SITE / FIRST FLOOR DIAGRAM



FIRST FLOOR DIAGRAM

SCALE: 1/8" = 1'-0"



SECOND FLOOR DIAGRAM

SCALE: 1/8" = 1'-0"

FIRE STATION NO. 5		
2 STORY BUILDING		
EXISTING SECOND FLOOR AREA	1,132 S.F.	EXISTING BUILDING AREA
EXISTING FIRST FLOOR AREA	6,424 S.F.	ADDED BUILDING AREA
EXISTING TOTAL BLDG. AREA	9,556 S.F.	RENOVATION AREA
ADDED SECOND FLOOR AREA	3,894 S.F.	

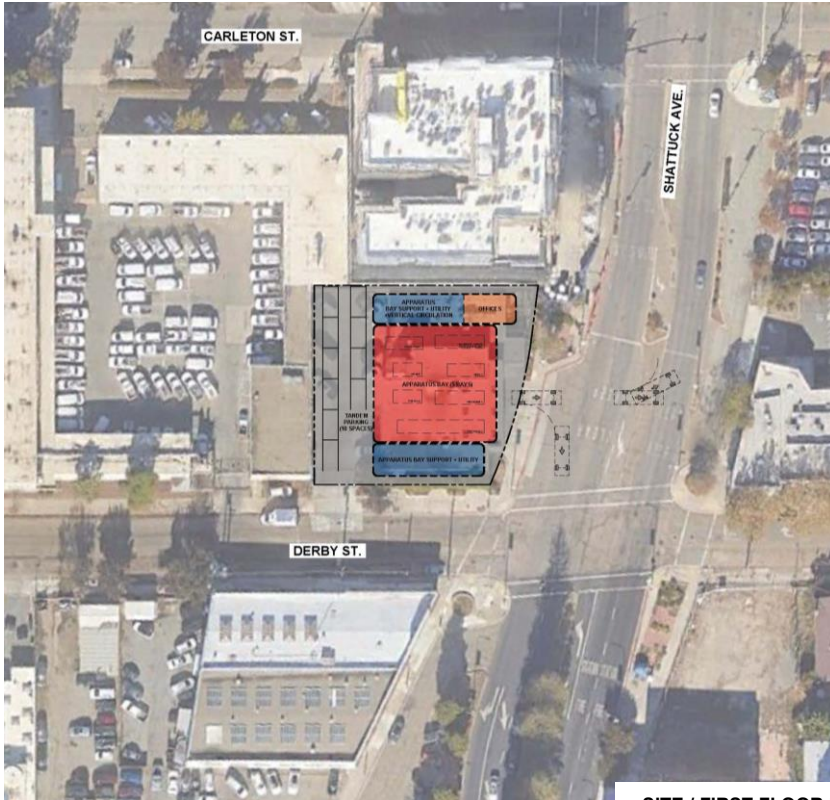


Station 5: Option 2

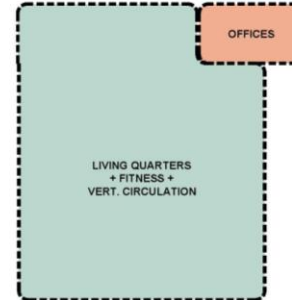
17,000 sf 2 story building

Replace station on existing site. Parking requirement not met.

ROM Project Budget \$33-38M



SITE / FIRST FLOOR DIAGRAM



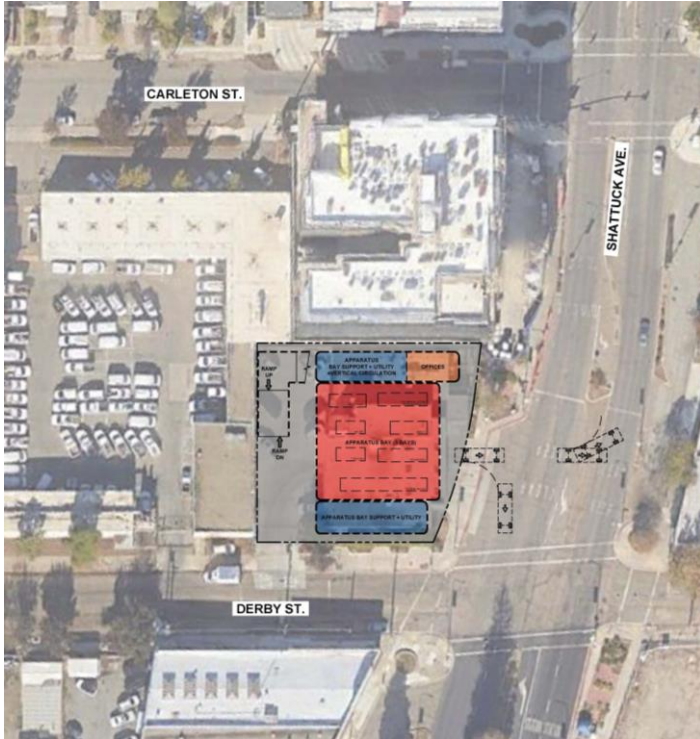
SECOND FLOOR DIAGRAM
SCALE: 1/32" = 1'-0"



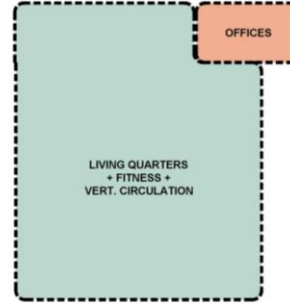
Station 5: Option 3

ROM Project Budget \$53-58M

17,000 sf 2 story building
Replace building with basement parking. Program met.

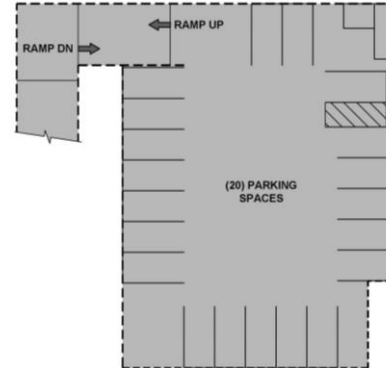


SITE / FIRST FLOOR DIAGRAM



SECOND FLOOR DIAGRAM

SCALE: 1/32" = 1'-0"



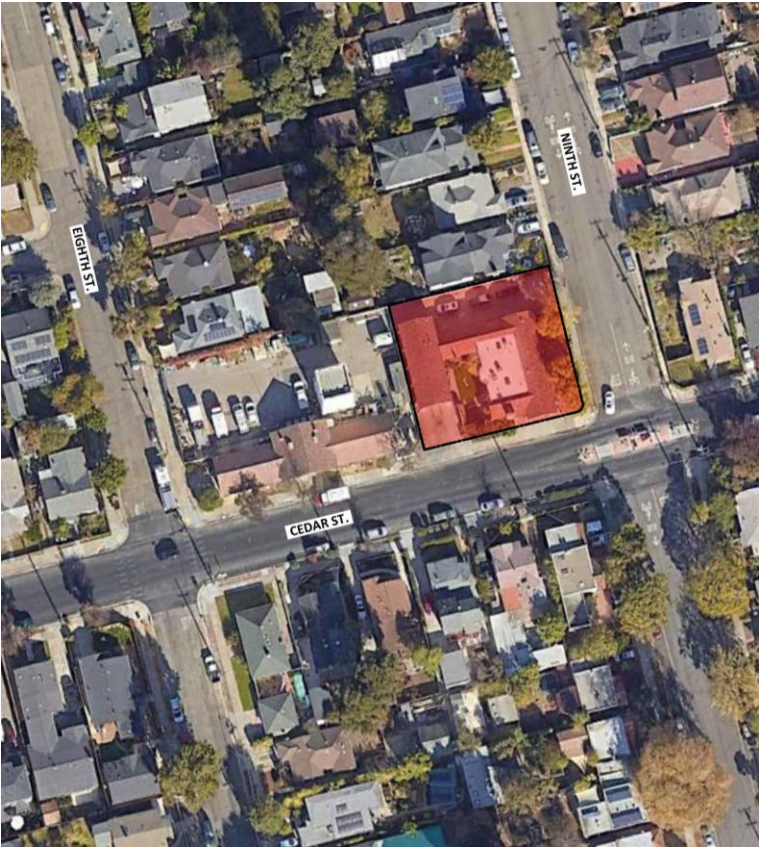
BASEMENT PARKING DIAGRAM

SCALE: 1/32" = 1'-0"



Station 6 Overview - 999 Cedar Street

Existing – 4,596 sf 1 story building

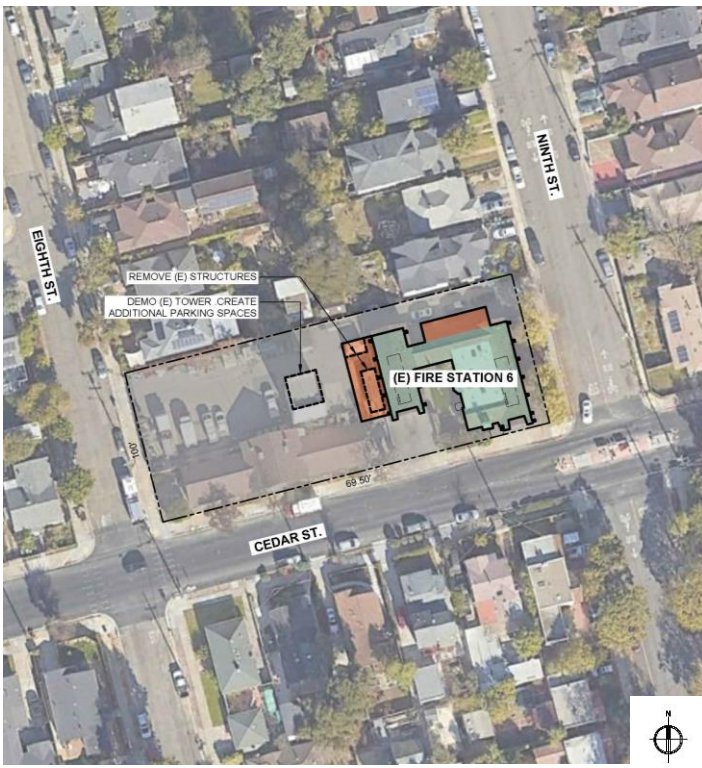


Fire House Company Make-up – Staffing Per Shift	Current	Need
Engine 6 – Captain, Engineer, Firefighter/Paramedic	3	4
Reserve Engine	0	0
TOTAL CURRENT AND PLANNED STAFFING	3	4

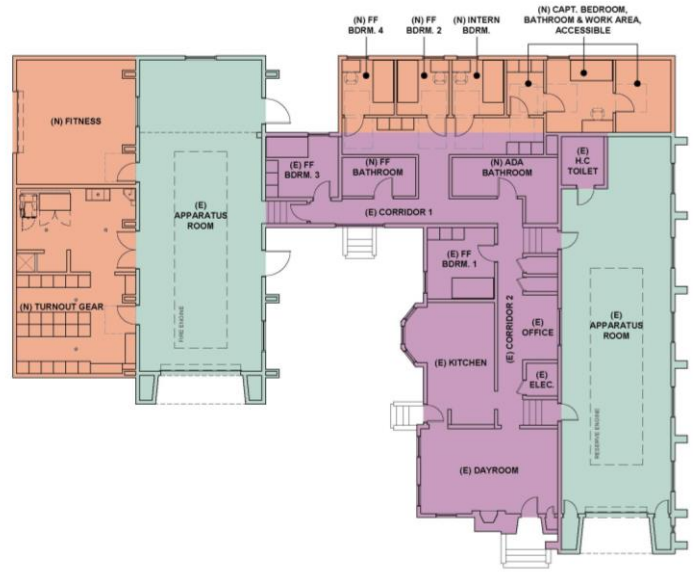
Station 6: Option 1

6,312 sf 1 story building
 Renovation and addition using training site.

ROM Project Budget \$11.6-15M



SITE / FIRST FLOOR DIAGRAM



FLOOR PLAN DIAGRAM
 SCALE: 1/16" = 1'-0"

- LEGEND:**
- EXISTING BUILDING AREA
 - ADDED BUILDING AREA
 - RENOVATION AREA

Station 7 Overview - 3000 Shasta Road

Existing – 6,920 sf 2 story building



Fire House Company Make-up – Staffing Per Shift	Current	Need
Engine 7 – Captain, Engineer, Firefighter/Paramedic	3	4
Surge Unit Type VI - Cross Staffed	3	4
Reserve Engine Type 1	0	0
Polaris (2 total)	0	0
Water Tender (2 total)	0	0
TOTAL CURRENT AND PLANNED STAFFING	6	8

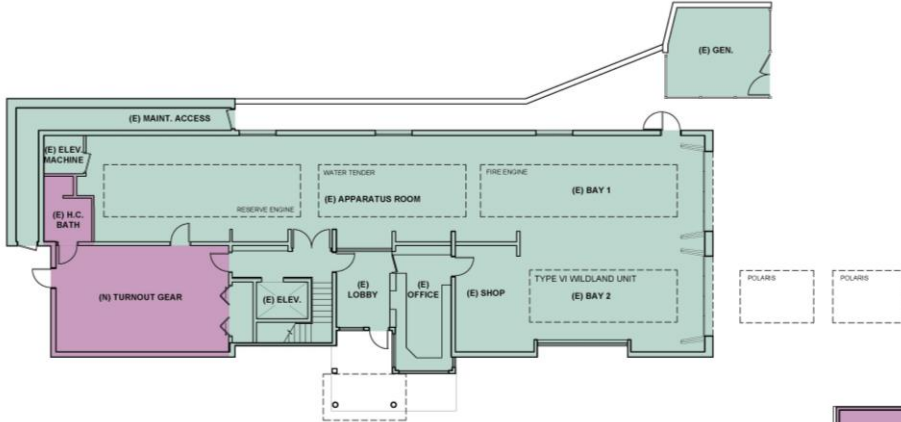


Station 7: Option 1

ROM Project Budget \$10-13M

8,000 sf 2 story building

Reconfigure and expand to add additional living quarters & fitness

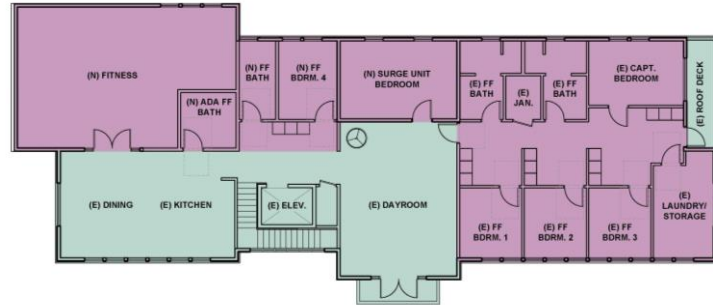


LEGEND:

- EXISTING BUILDING AREA
- RENOVATION AREA

FIRST FLOOR PLAN

SCALE: 1/16" = 1'-0"



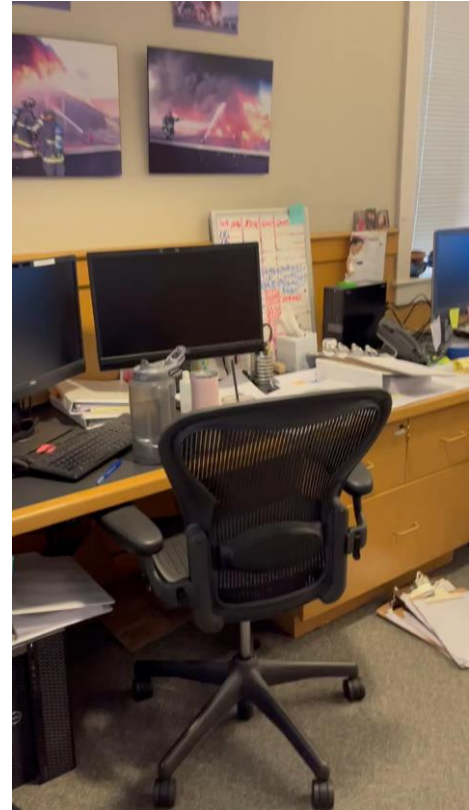
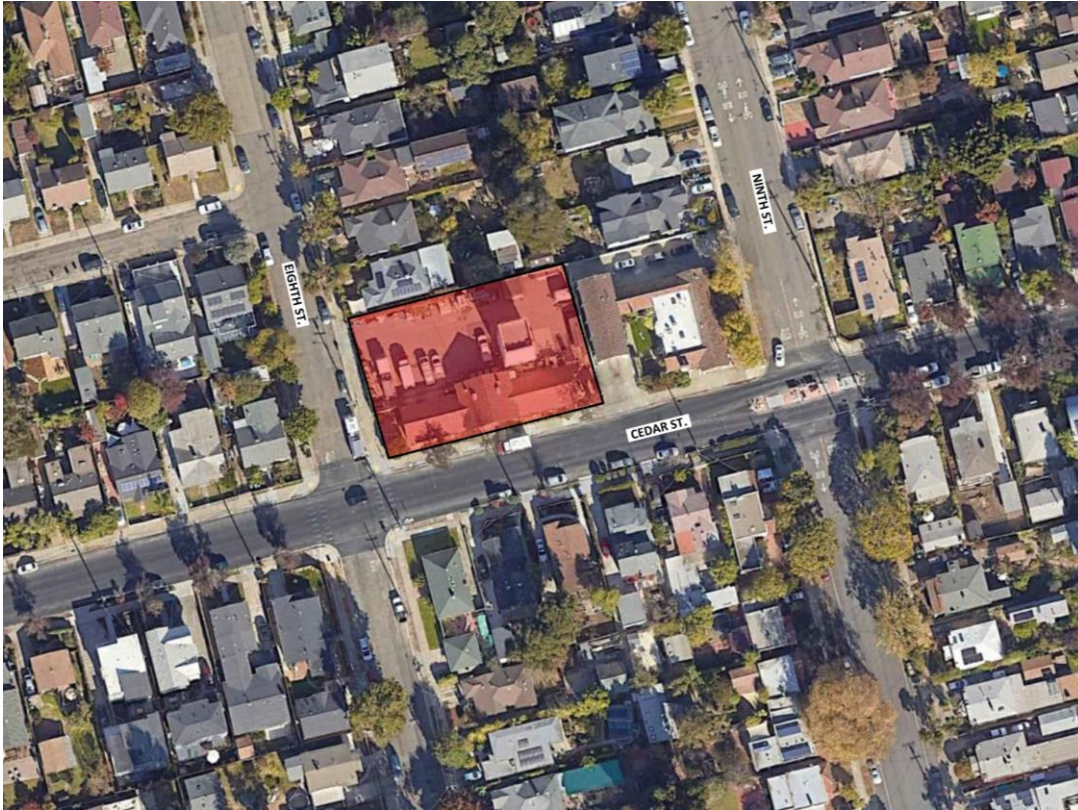
SECOND FLOOR PLAN

SCALE: 1/16" = 1'-0"



Division of Training Overview - 997 Cedar Street

Existing – 3,893 sf 1+ story building



Division of Training – Richmond

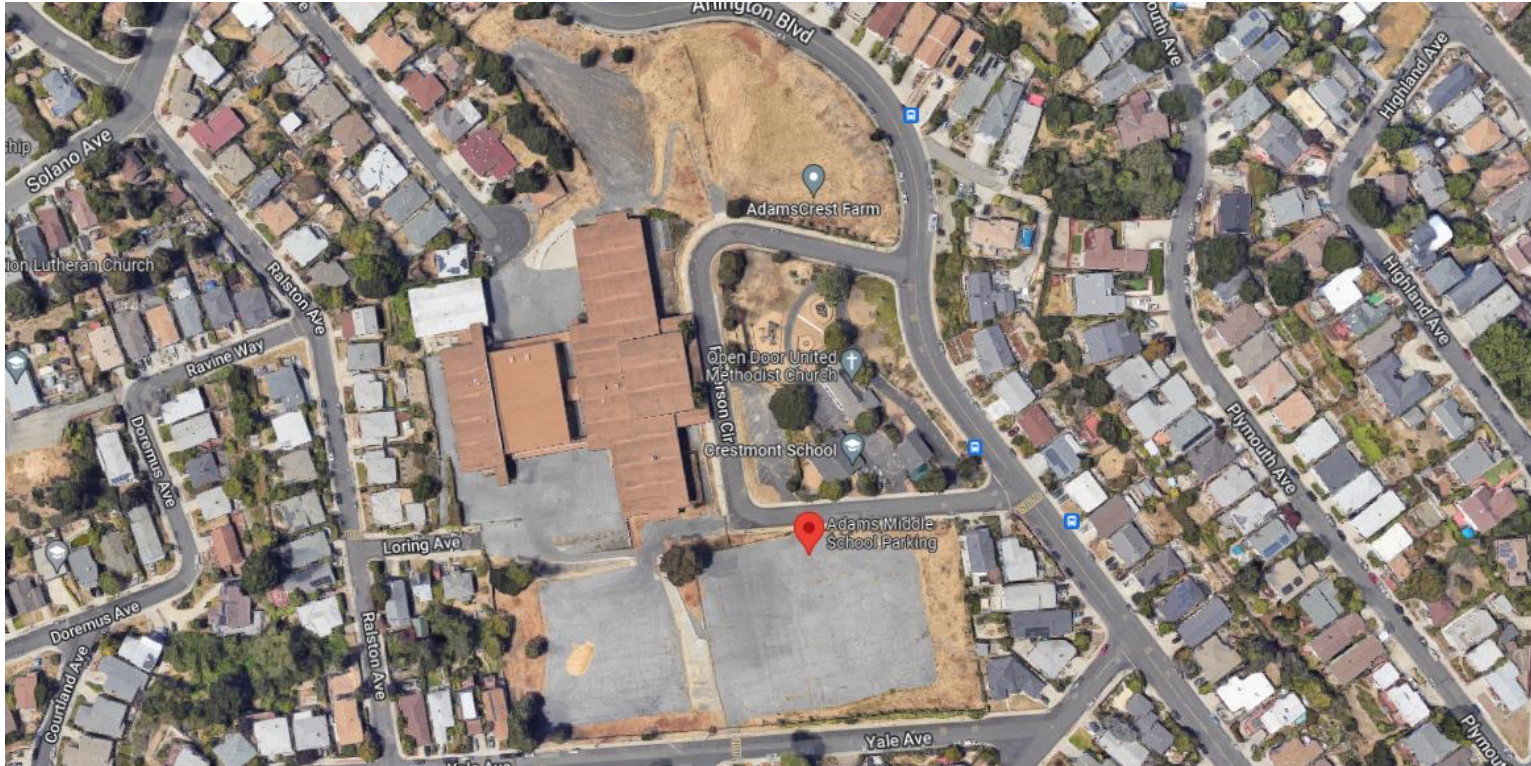
ROM Project Budget \$81-90M

Proposal – Joint 30,694 sf training facility with cities of Albany, Richmond, and El Cerrito



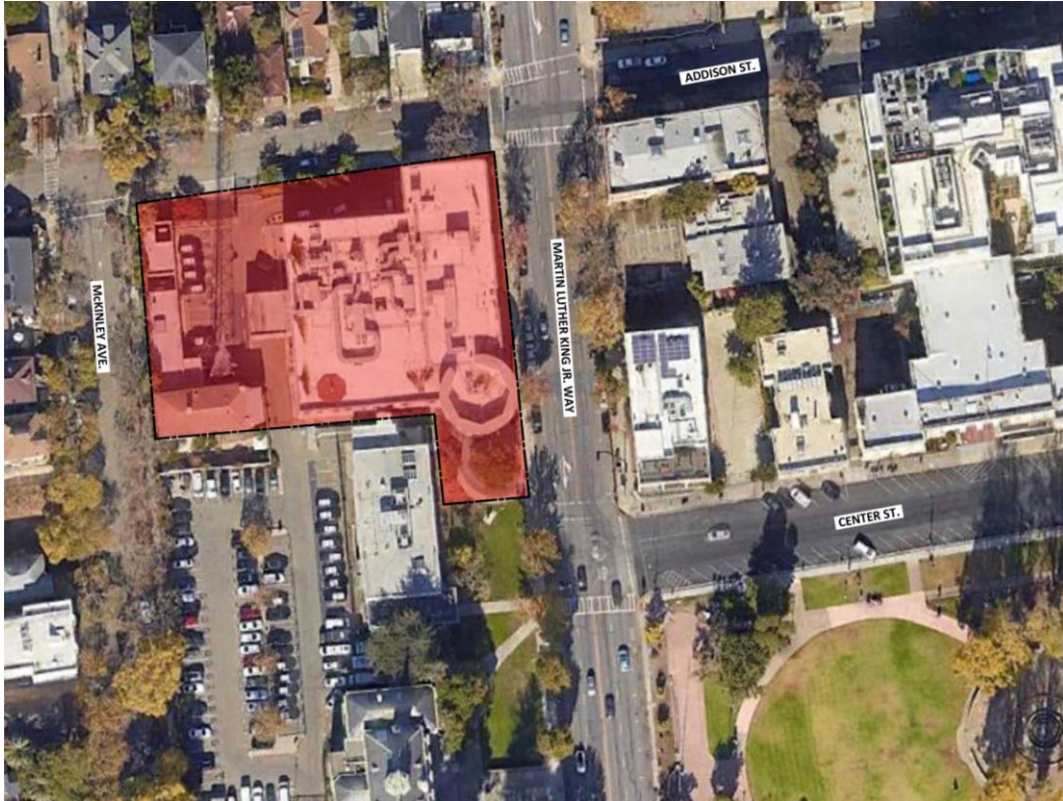
Division of Training – El Cerrito

Proposal – Joint 12-acre training facility with cities of Albany, Richmond, and El Cerrito



Fire Headquarters Overview - 2100 MLK Jr. Way

Existing – 11,789 sf in the Public Safety 2 story building



Fire Headquarters - TBD

ROM Project Budget \$33-36M

Proposal – Relocate the Fire administration offices, EOC center, and Ambulance program.

Headquarters Space Needs	Program
Fire Department Admin	1,735
Fire Department Training Division	1,788
Fire Department Finance	1,147
Fire Department EMS	842
Fire Department Emergency Management	543
Fire Prevention	1,458
Wildland Division	707
Fire Department Shared and Support Spaces	3,676
Utility Support Spaces	544
Circulation at 30%	4,736
Headquarters Subtotal (SF)	17,176

Training Classroom Space Needs	Program
Main Classroom	2,208
Equipment Storage	180
Table and Chair Storage	192
Secondary Classroom	768
Training Classrooms Subtotal (SF)	3,348

Headquarters Subtotal (SF)	17,176
Training Classrooms Subtotal (SF)	3,348
Ambulance Deployment Center Subtotal (SF)	8,324
Grossing Factor 15%	4,327
Grand Total	33,175

Priorities and Phasing

Phased process starting with the most impacted stations – Stations 1, 2 & 5 with goal to increase staffing in the Downtown area:

- Recommendation is to start with Station 1 relocation and then use the existing station as a temporary station.
- Station 2 and 5 are the most impacted by density and are high priorities.
- A new Training Center and Headquarters are also high priorities.



Priorities and Phasing

SEQUENCED PROJECTS

Design Start		Rough Order of Magnitude Costs	
		LOW x \$ Million	HIGH x \$ Million
2024	Fire Station 1 Relocation New site on/near San Pablo Ave	\$42	\$47
2026	Fire Station 2 Replacement Temporary Location - Station 1, 4, 5	\$51	\$56
2028	Fire Station 5 Replacement Temporary Location - Station 1, 4, 2	\$53	\$58
2030	Fire Station 4 Replacement Temporary Location - Station 2, 6	\$36	\$41

INDEPENDENT PROJECTS

Design Start		Rough Order of Magnitude Costs	
		LOW x \$ Million	HIGH x \$ Million
2023	New Headquarters Site TBD	\$33	\$36
2023	Training Center Phase 1 Renovation Phase 2 Replacement Regional Site TBD	\$81	\$90
2026	Fire Station 3 Renovation + Expansion Temporary Location - Station 2, 5	\$12.0	\$16
2028	Fire Station 6 Renovation + Expansion Temporary Location - Trailer on site	\$11.6	\$15
2030	Fire Station 7 Renovation + Expansion Temporary Location - TBD	\$10.0	\$13
TOTAL Rough Order of Magnitude Project Cost		\$330	\$372

Thank you

