



Program of Requirements - Stakeholder Questionnaire and Interviews



City of Taylor Mill, KY

New Fire Station Planning
03.07.2022

Program of Requirements Summary - Provided by Questionnaire/Interviews

Facility Use Groups - Access Required

- Fire Department - Full and Part Time Employees
- Taylor Mill Residents
- Public Works
- City Administration
- Police

Apparatus Servicing

Refueling	Onsite
Cleaning	Inside Apparatus Bays
Maintenance	FD (Minor)
Contract Entity	Specialty Vendor (Major)

Parking Count Required (Min.)

Staff	15
Visitors	5

Station Type - Current Operations

Service Call Type	Fire/EMS Services
Service Area	Suburban, Lt. Commercial, Lt. Industrial, Interstate Hwy.
Structure Fire Types	Mid-Rise, Industrial, Suburban, Commercial
Inspection Services?	Yes
EMS/Paramedic	Yes
Call return procedure	Clean/Restock
Decon - Outside/Inside	Inside
Storage/Restock	Small Closet, Variety of Cabinets
HazMat Services	Awareness-Level
Foam Storage	5-Gallon Buckets
Known Deficiencies	Not currently zoned for proper staff decontamination, lack of storage, no vehicle exhaust removal, poor drain system, no extractor, poor heating and insulation, limited electrical and water outlets, aging overhead doors and systems, no room for spare equipment.

Staffing

Full Time/Part Time	Yes, Full Time, Part Time and Auxillary
Current Staff Levels/Shift	3 to 4
Future Staff Levels / Shift	5 to 6

Number of Shifts	3
Apparatus Bay	
Current Equipment	Single Axel Custom Engine - 34' Squad 1 - 26' Squad 2 - 26' E801 - 34' E802 - 34' Car 825 - 17' Car 826 - 17' Support 830 - 21'

Future Equipment	Single Axel Quint - 44'
Hose Testing (Where)	Parking Lot
Preferred Exhaust Extraction	Hastings/Plymovent
Minimum Door Size	14' x 14' (Folding)
Maintenance/Restock	Apparatus Bay
Air Fill System	True Cascade System
EMS Supply	Dedicated Secure Storage
Ceiling Height Required	20' Min.

Response Station/Dispatch Center

Radio Calls	Communications Center Alerting
Pagers	Digital Pagers
Radio Charging/Number Req.	Yes - 22
Response Station location:	Attached to Apparatus Bays - Visual Control
Response Station needs:	Work Stations, Phones, Direct Access to Apparatus Bays

Administrative Spaces

Required?	Yes
Private Offices	(4) - Chief, Asst. Chief, Shift Officer, Fire Marshall
Shared Offices	Firefighters (3-4), EMS (2)
Training Room	General Meetings (6-8)
File Storage	Yes
Copy/Fax/Supplies	Yes
Work Areas	(Shared - Above)
General Storage	Yes
Library	In Training Room

Training Room

Required?	Yes
Double as Emergency Center?	Yes
Training Types	Company, Department, Academy, EMS
Training Officer?	Yes
Reference Storage?	Yes
Accessible to the Public?	Yes
Props?	Yes, Classroom

Features/Equipment Needs	Projector/Screen, Whiteboard, Data, Wall & Table Power
Kitchenette?	No

Training Tower

Required?	Yes. Existing is closing March 1, 2022
Training Goals	2-Story hose movement, anchor stations, confined space, window props, ladder training, search and rescue.
Special Training Needs	Rail Yard (May be used, in fire district)

Fitness Room

Required?	Yes
Occupant Load	4 to 5
Equipment by Owner/Vendor?	Owner
Other users?	City Staff (Police/City)
Outside Entrance?	Yes
Shower/Lockers?	Yes

Day Room

Required?	Yes
Occupant Load	7 to 10
Open to Kitchen/Dining?	Yes
Other Functions/Uses	Study, Training
Seating Type?	Recliners

Kitchen

Required?	Yes
No of Refrigerators	3
No. of Pantries	3
Emergency Operations Food?	Yes
Used with Training Room?	Yes
Exterior Gas Grill Required?	Yes
Occupant Load (Served)	45

Dining Space

Required?	Yes
Open to Kitchen?	Yes
Open to Day Room?	Yes
Open for Training Classes?	Yes
Public Workshops	No
Meetings or Study	Yes

Locker Rooms

Required?	Yes
Personal Gear Location?	Bunk Rooms, Locker Rooms
Locker Size	24 x 24

Quantity	20 - Mixed Men/Women
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Toilet Room/Showers

Required?	Yes
Towel Laundering	By Staff

Sleeping Quarters (Bunkrooms)

Required?	Yes
Current Rooms Required	5
Future Rooms Required	10
Sleeping Quarters Type	Dorm-Style
Separate Rooms or Conjoined?	Separate Rooms

Laundry Room

Required?	Yes
Combine with Turnout Gear?	No, Separate.
Uniform Cleaning?	By Staff
Turnout Gear Cleaning (Where)	On-site

Support Spaces

Turnout Gear Room	23 Lockers
Additional Gear Storage	Quartermaster Room
Gear Bags	FTE - Second Set of Gear
Turnout Gear Sets	FTE x (2) ea, PTE x (1) ea
Total Sets of Turnout Gear	30 Current Sets + Spare Sets

Shop / Tool Room

Required?	Yes
Heavy Vehicle Maintenance?	Possibly
Tune-ups, Oil Changes	Yes
Repair Lift Required?	Would like one
Repair Pit Required?	No
Minimum Clear Height Req.	20'
Air Compressor Required?	Yes
Located Inside/Outside?	Inside
Tools/Supplies	Air Tools, Shop Tools, Tool Chests, Workshop Table Miter Saw, Table Saw, Drill Press

Fire Hydrant Maintenance?

No

Janitor/Cleaning Closet

Required?	Yes
Equipment Stored	(3) Mops, (4) Brooms, (4) Squeegees, (1) Buffer, (2) Vacuums

Hose Storage / Tower

Hose Material / Drying	Synthetic - Dry on Floor and place on apparatus
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Hose Storage (1) Rolling Rack: 5", 3", 2-1/2", 1-3/4", 1"

Decon/Cleanup Room

Deep Sink with Hands-Free?	Yes
Decon Shower?	Yes
Containment Sewer System?	Yes
Drug Storage?	EMS Room

Other Needs/Spaces

Data/Server Room, CCTV for Station, Storage, Janitor Closet, Public Safety Campus?, Vestibule, Decon Room Storage for Yard Maintenance - Shed?, Storage Loft: Electrical & Water Supply Drops, Electronic Station Access

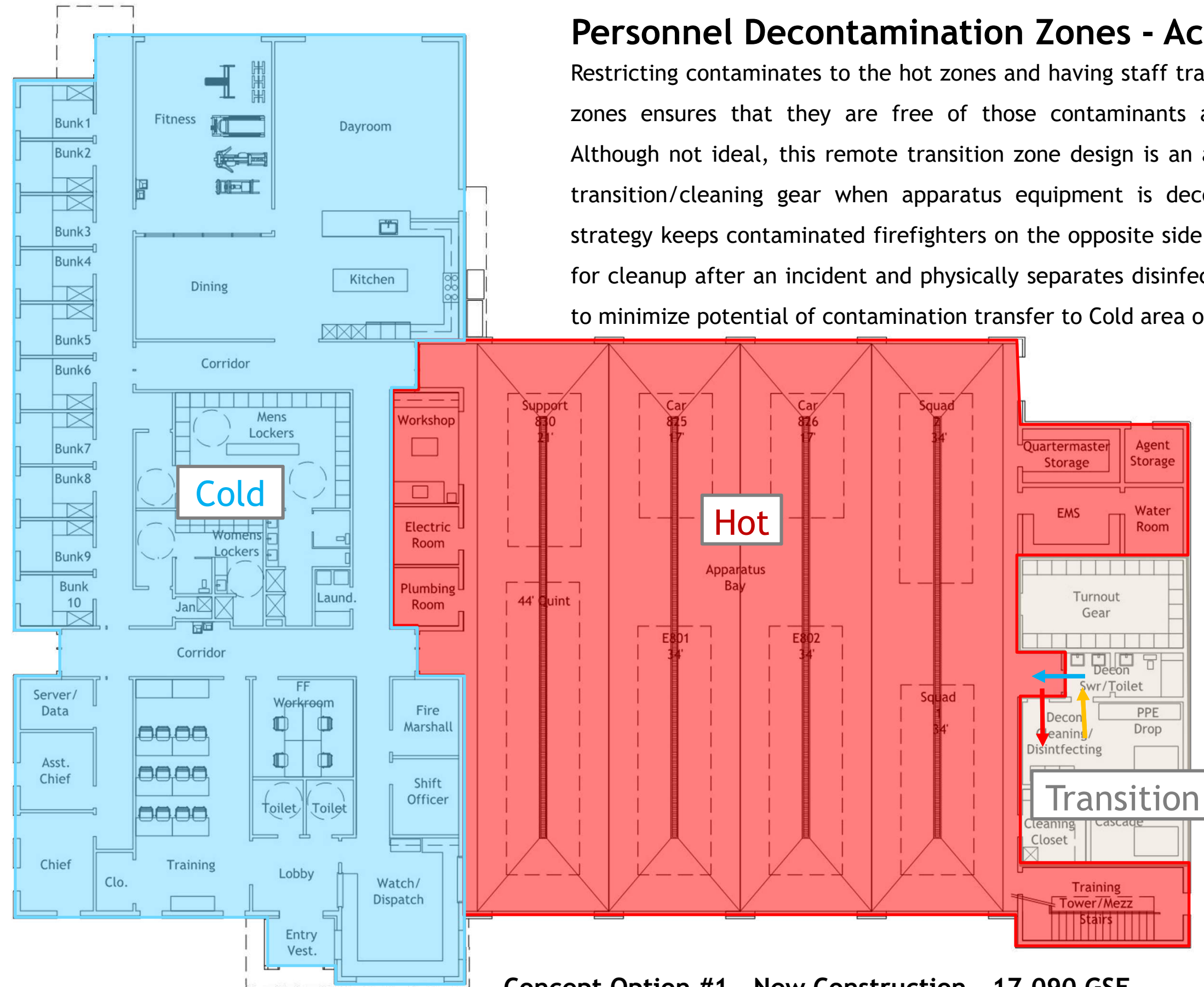


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Personnel Decontamination Zones - Acceptable

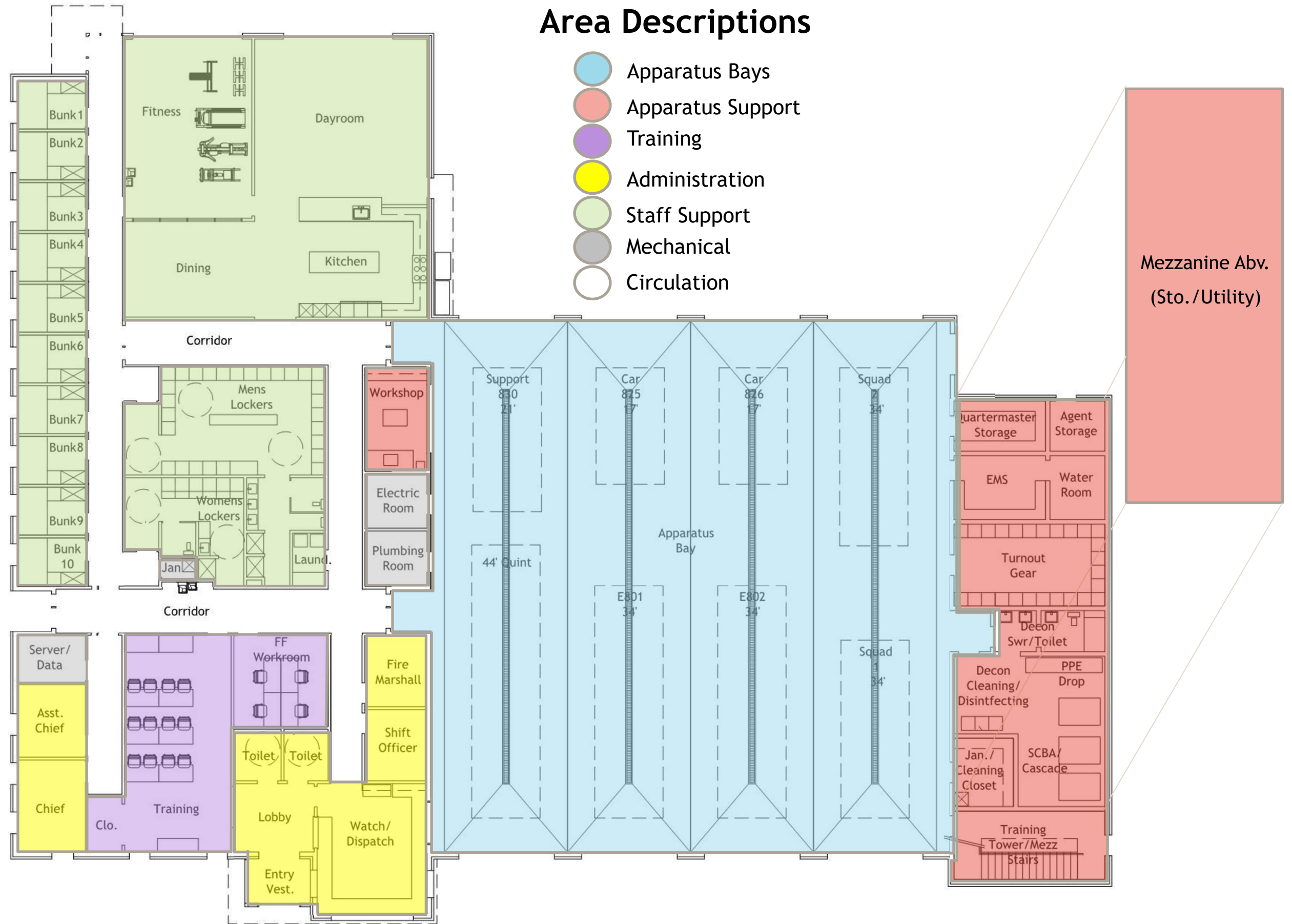
Restricting contaminants to the hot zones and having staff transition to the cold zones ensures that they are free of those contaminants after an incident. Although not ideal, this remote transition zone design is an acceptable way to transition/cleaning gear when apparatus equipment is decontaminated. This strategy keeps contaminated firefighters on the opposite side of Apparatus Bays for cleanup after an incident and physically separates disinfecting operations as to minimize potential of contamination transfer to Cold area of Fire Station.



Concept Option #1 - New Construction - 17,090 GSF

Area Descriptions

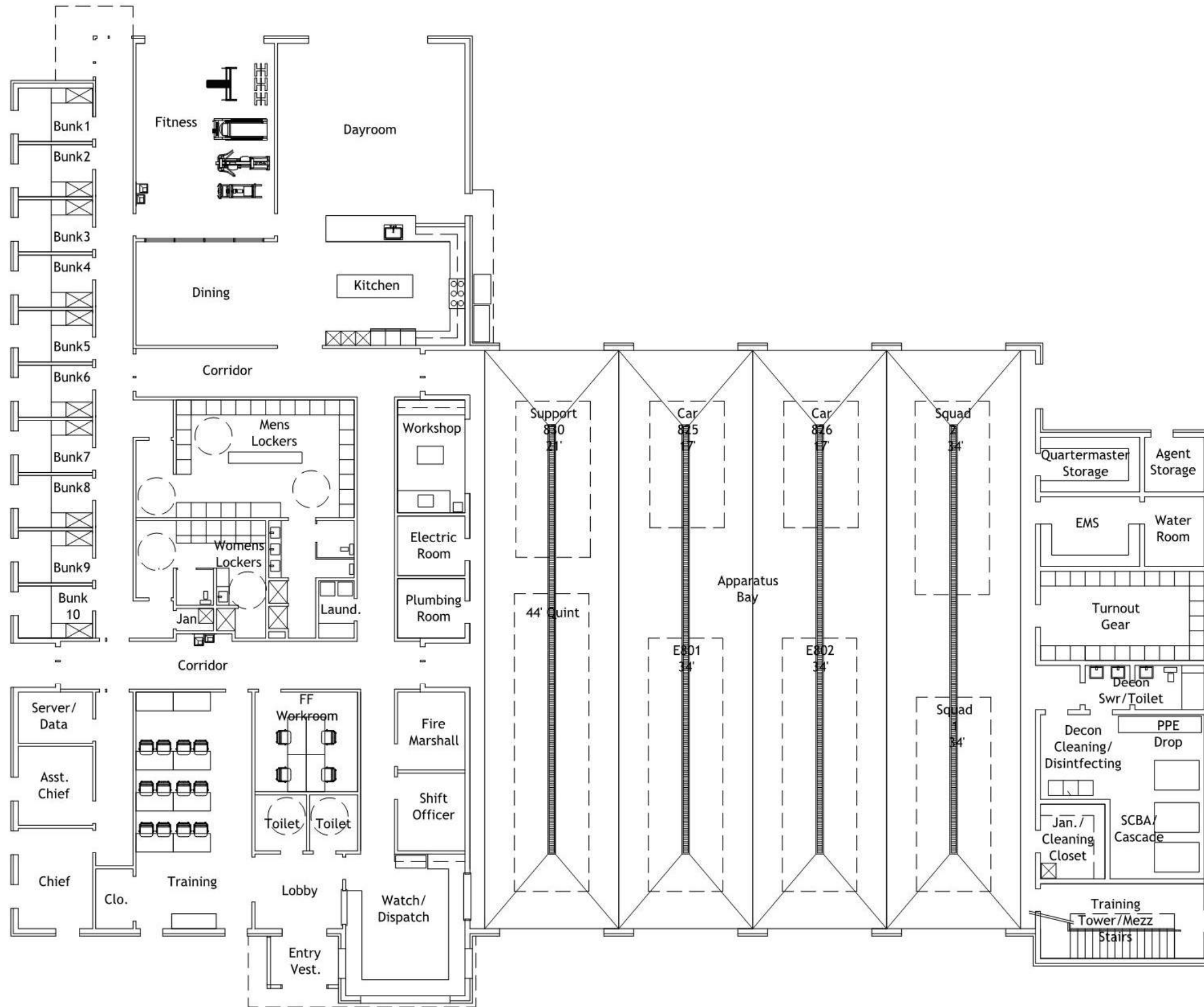
- Apparatus Bays
- Apparatus Support
- Training
- Administration
- Staff Support
- Mechanical
- Circulation



Concept Option #1 - New Construction - 17,090 GSF

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Concept Option #1 - New Construction - 17,090 GSF

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Concept Option #1 Site Plan - New Construction

Rough Order of Magnitude Opinion of Cost



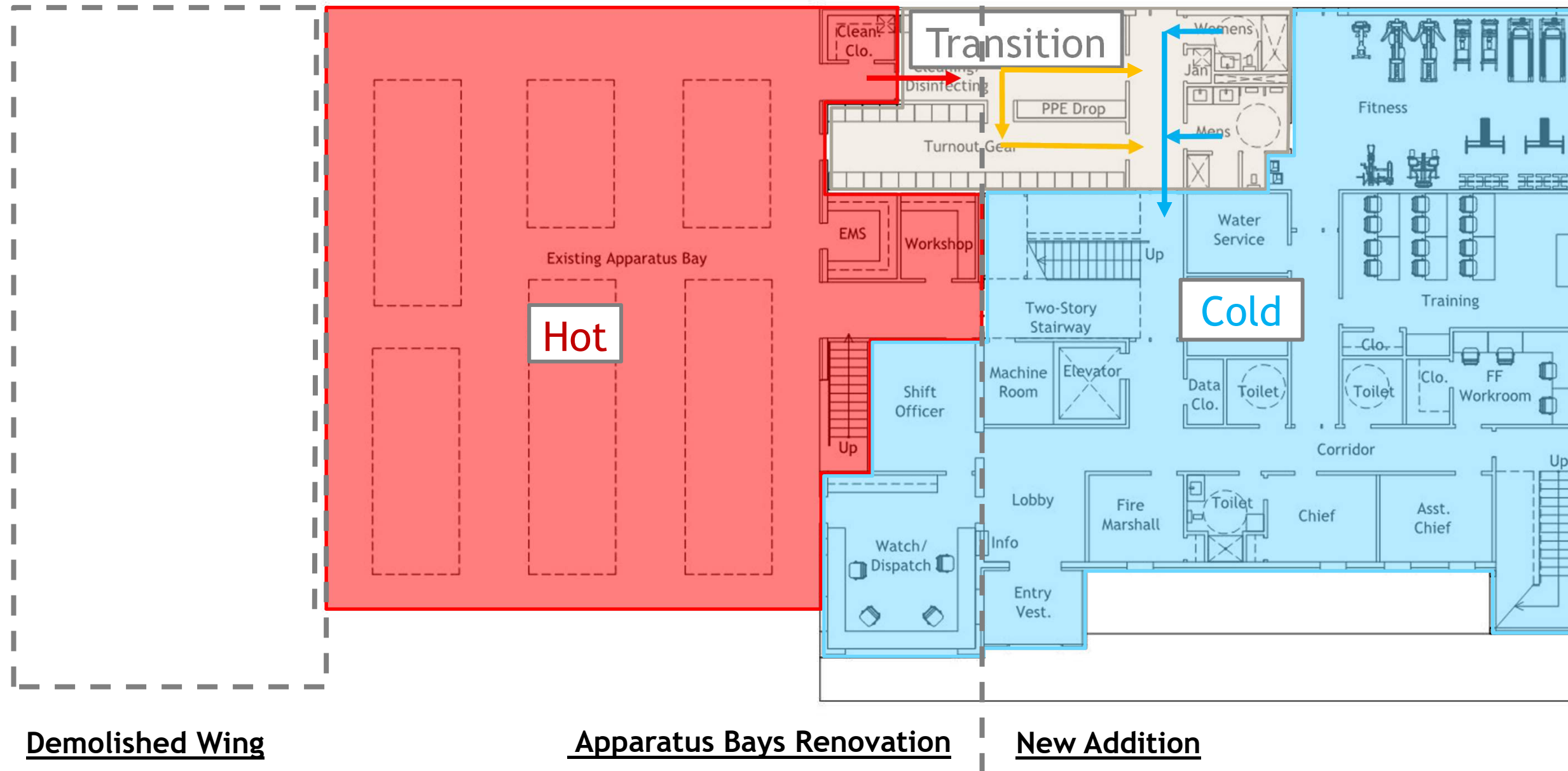
5/25/2022

Taylor Mill Firestation Concept Study - ROM Cost				
PRELIMINARY COST ESTIMATE - Option #1 - New Construction				
Description	Quantity	Unit	Unit Cost	Total Amount
1. Existing Site Demolition - Existing Fire Station Admin Wing	1	Allowance	\$ 15,000	\$ 15,000
2. Existing Site Rehabilitation - Seed/Straw/Fill	1	Allowance	\$ 5,000	\$ 5,000
3. Rehabilitation Construction - Essential Wall/Roof Patch/Paint Existing Exterior Apparatus Bays	1	Allowance	\$ 20,000	\$ 20,000
4. Base Plan - New Conditioned Admin Space, Slab-on-Grade, Steel Frame, Wd. Trusses, Brick	7,190	SF	\$ 435	\$ 3,127,650
5. Base Plan - New Utility Space/Apparatus Bays/Mezzanine	9,900	SF	\$ 250	\$ 2,475,000
6. Basic Site Work, New Site Fill, New Lg. Engineered Detention Basin, New Sidewalk & Asphalt, New Utilities, New Retaining Walls	1	Allowance	\$ 700,000	\$ 700,000
7. Site Signage/Wayfinding	1	Allowance	\$ 20,000	\$ 20,000
Preliminary Opinion of Construction Cost				\$ 6,362,650
A/E Fees, Permits, Geotechnical Testing & Contractor Costs (25%)			25.0%	\$ 1,590,663
Owner's Contingency (15%) + FF&E (5%)			20.0%	\$ 1,272,530
Preliminary Opinion of Project Cost - Option 1				\$ 9,225,843

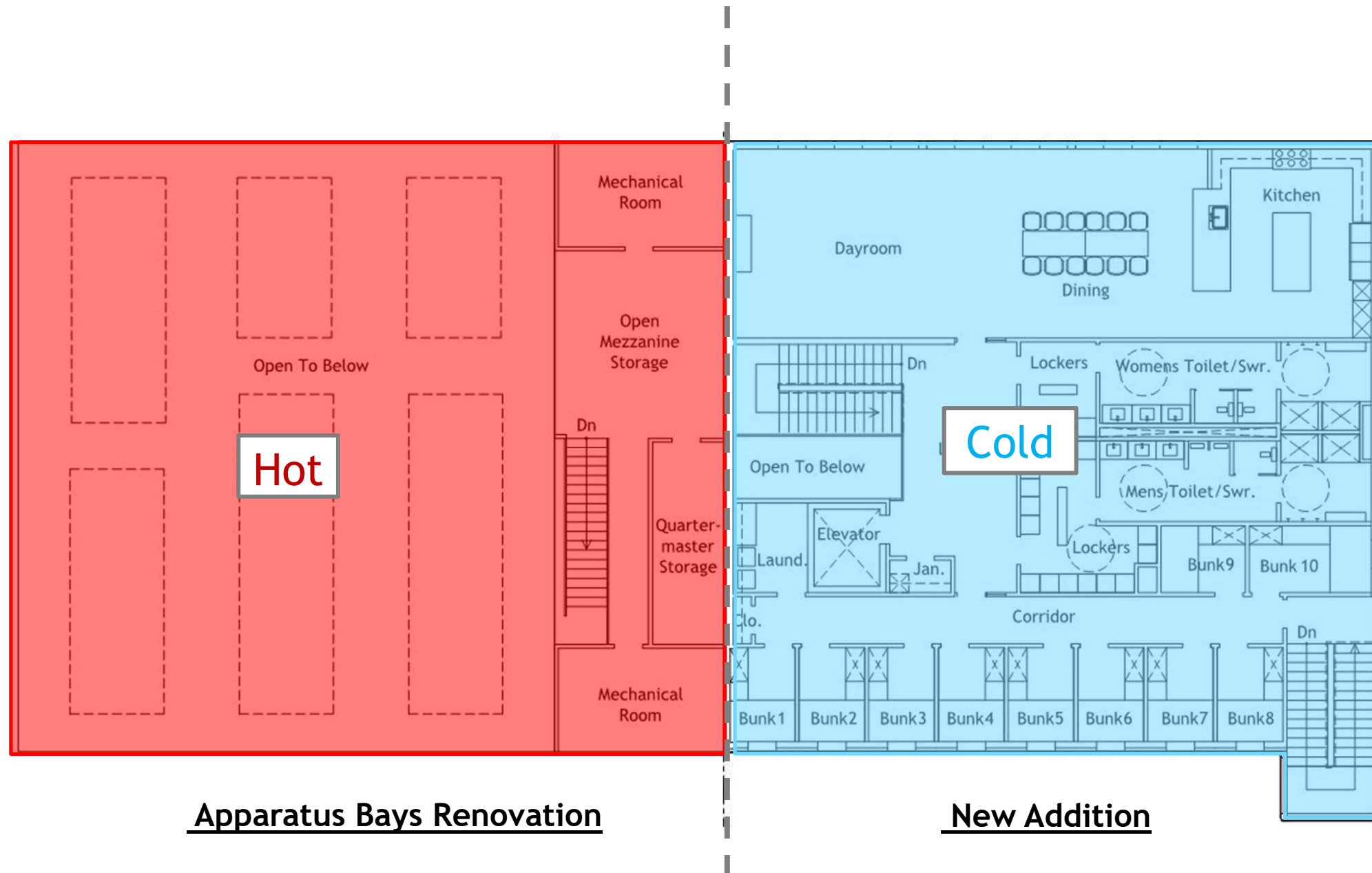


Personnel Decontamination Zones - Ideal

Incidents of cancers in the fire service are driving the need for staged fire station zones, which restricts cancer-causing contaminants from living areas in the station. This includes decontaminating equipment, gear and of course, people. Restricting contaminants to the hot zones and having staff transition to the cold zones without traversing through other spaces ensures that they are free of those contaminants after an incident. This zone design is optimized for clear staged transition zone disinfecting techniques.



Concept Option #2 1st Floor - Existing Renovation / New Building Addition - 15,975 GSF

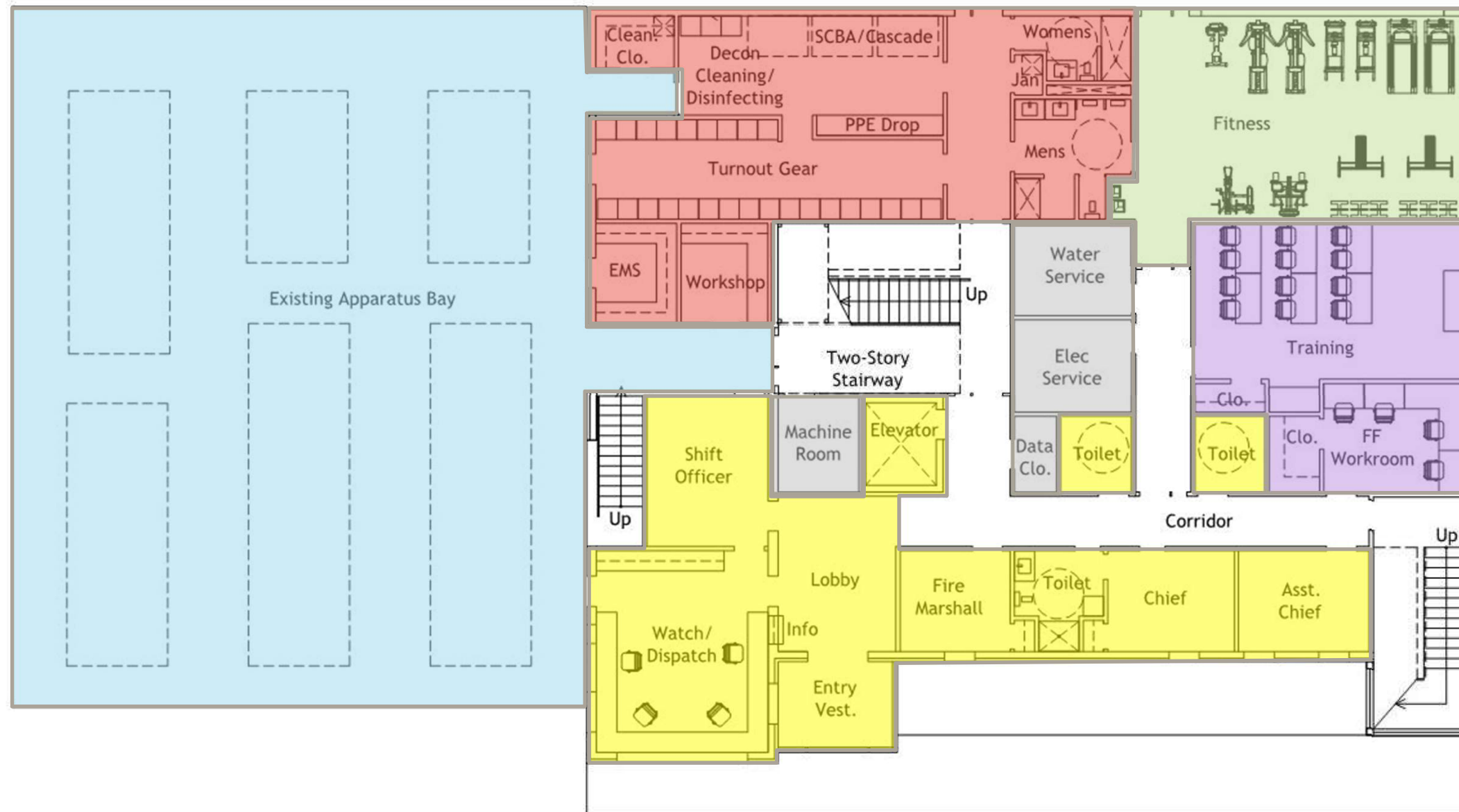


Apparatus Bays Renovation New Addition

Concept Option #2 2nd Floor - Existing Renovation / New Building Addition - 15,975 GSF

Area Descriptions

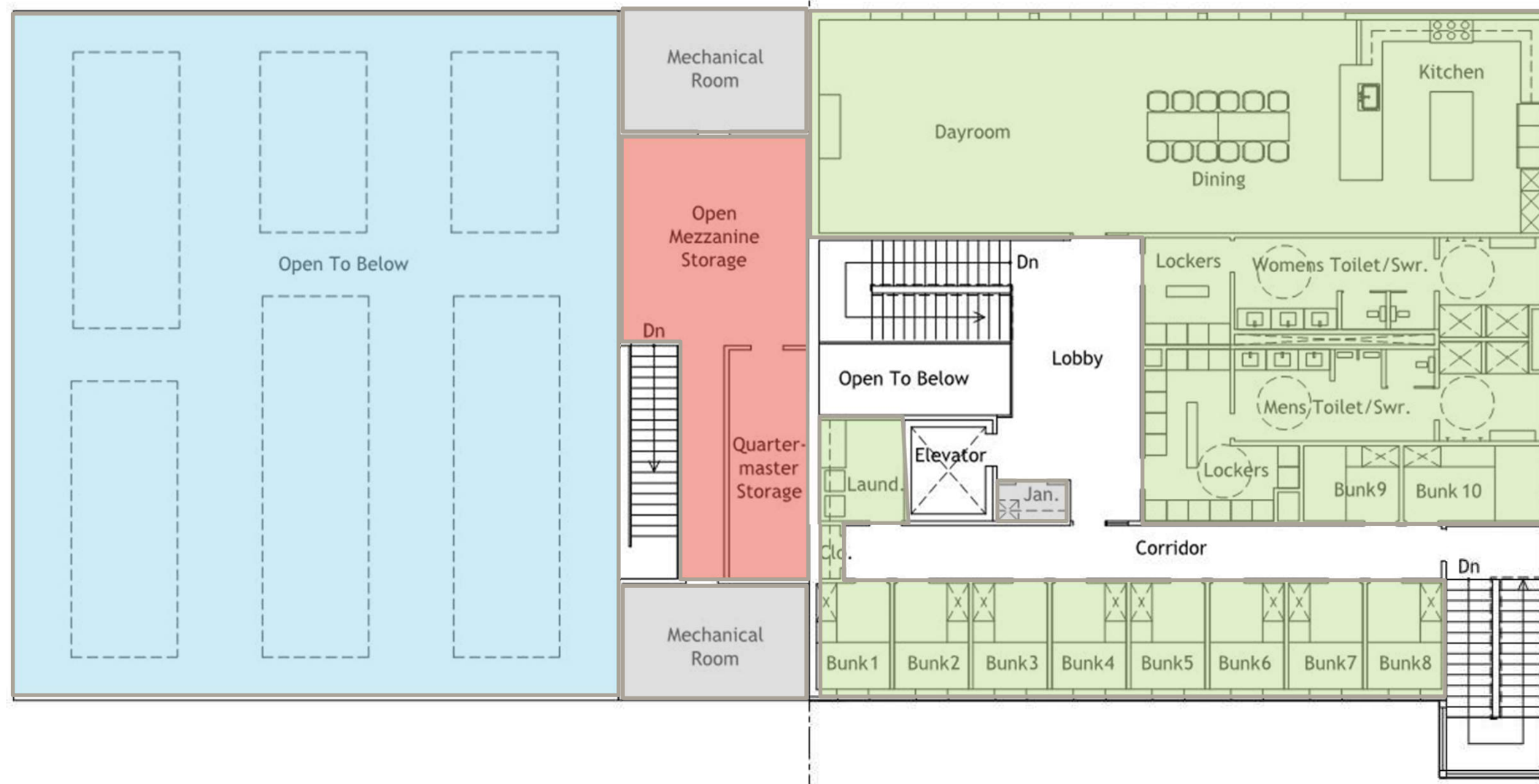
- Apparatus Bays
- Apparatus Support
- Training
- Administration
- Staff Support
- Mechanical
- Circulation



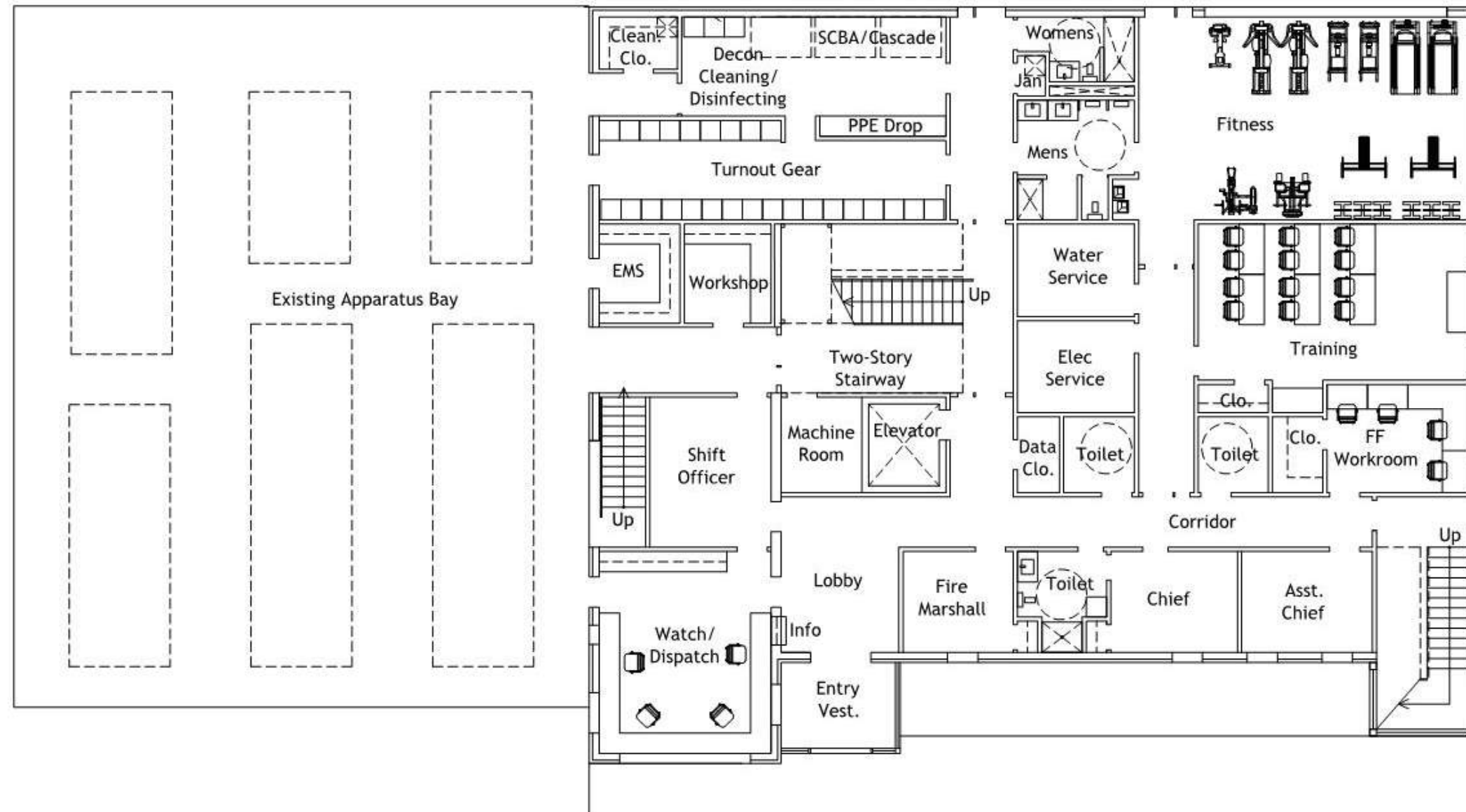
Concept Option #2 1st Floor - Existing Renovation / New Building Addition - 15,975 GSF

Area Descriptions

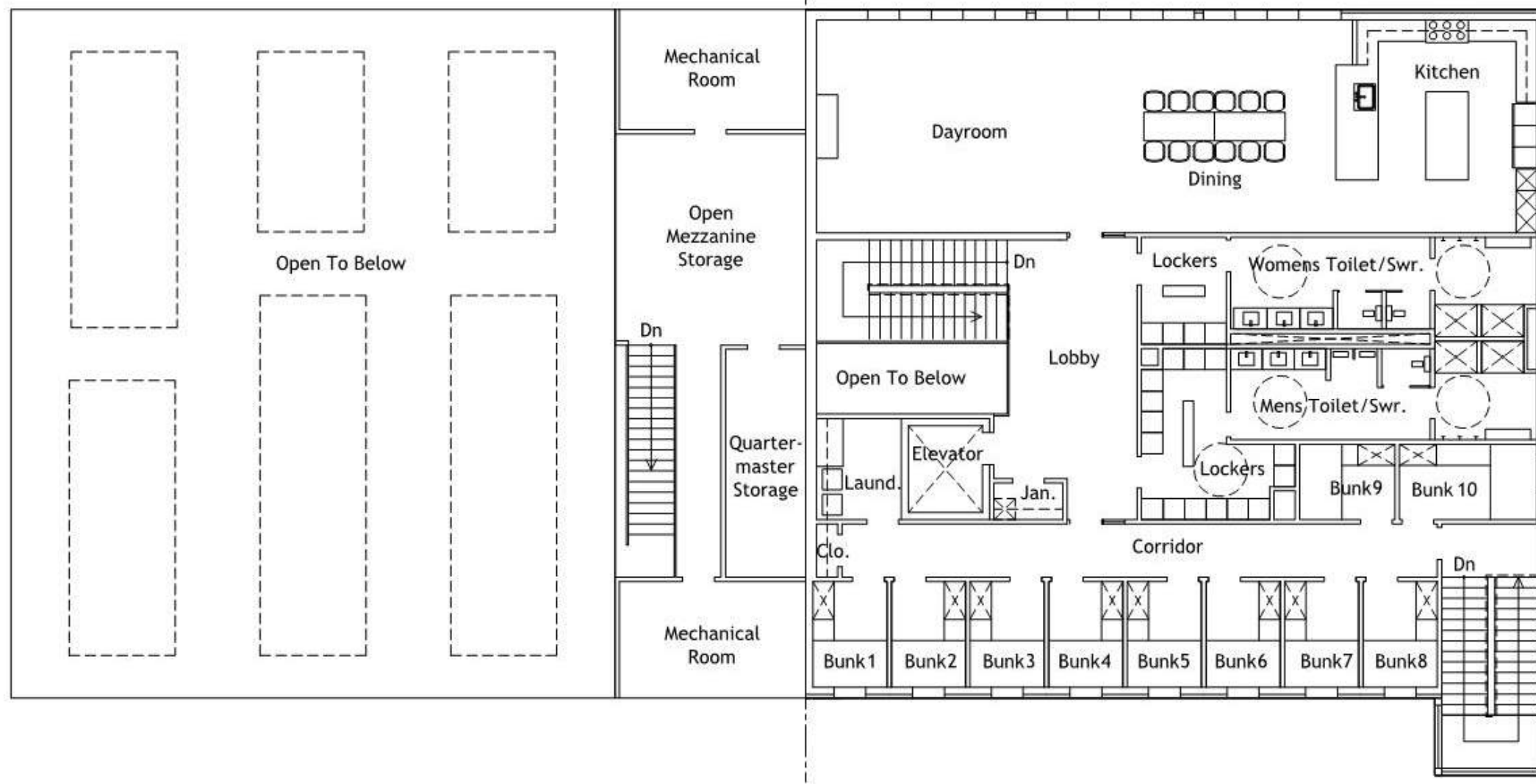
- Apparatus Bays
- Administration
- Circulation
- Apparatus Support
- Staff Support
- Mechanical
- Training



Concept Option #2 2nd Floor - Existing Renovation New Building Addition - 15,975 GSF



Concept Option #2 1st Floor - Existing Renovation / New Building Addition - 15,975 GSF



Concept Option #2 2nd Floor - Existing Renovation / New Building Addition - 15,975 GSF



Concept Option #2 Site Plan - Existing Renovation / New Building Addition

Rough Order of Magnitude Opinion of Cost



5/25/2022

Taylor Mill Firestation Concept Study - ROM Cost				
PRELIMINARY COST ESTIMATE - Option #2 - Rehabilitate Existing Bays & New Addition				
Description	Quantity	Unit	Unit Cost	Total Amount
1. Existing Site Demolition - Existing Fire Station Admin Wing	1	Allowance	\$ 15,000	\$ 15,000
2. Existing Site Rehabilitation - Seed/Straw/Fill	1	Allowance	\$ 5,000	\$ 5,000
3. Rehabilitation Construction - Essential Wall/Roof Patch/Paint Existing Apparatus Bays/Tying into New Building Addition	1	Allowance	\$ 40,000	\$ 40,000
4. Base Plan - New Conditioned Admin Space, Slab-on-Grade, Two Story Steel Frame, Wd. Trusses, Brick/Metal Siding, Deep Footings or Helical Piers / Soil Stabilization	8,935	SF	\$ 500	\$ 4,467,500
5. Base Plan - New Heated Utility Spaces (Decon / Cleaning / Turnout, etc.)	1,040	SF	\$ 175	\$ 182,000
6. Base Plan - Light Refresh of Apparatus Bays/New Watch Dispatch & Shift Officer / New Mezzanine Structure/New Vehicle Exhaust Capture System (Plymovent)/New Locution Station Alert System/House PA/New Floor Drains	6,000	SF	\$ 65	\$ 390,000
7. Basic Site Work, New Asphalt, Sidewalks, New Stormwater BMP	1	Allowance	\$ 150,000	\$ 150,000
Preliminary Opinion of Construction Cost				\$ 5,249,500
A/E Fees, Permits, Geotechnical Testing & Contractor Costs (25%)			25.0%	\$ 1,312,375
Owner's Contingency (15%) + FF&E (5%)			20.0%	\$ 1,049,900
Preliminary Opinion of Project Cost - Option 2				\$ 7,611,775



Taylor Mill Fire Station Planning

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Interior Space Dimension Comparison

Interior Space Dimensions by Concept		
Space	Version #1	Version #2
Entry Vestibule	9' x 7'	10' x 9'
Watch/Dispatch Office	16' x 19'	17' x 19'
Typical Office	10' x 11'	13' x 10'
Training Room	16' x 32'	27' x 15'
FF Workroom	14' x 14'	14' x 11'
Men's Lockers	24' x 16'	37' x 9'
Women's Lockers	13' x 16'	37' x 9'
Typical Bunkroom	10' x 7'	10' x 7'
Kitchen	19' x 16'	17' x 20'
Dining	19' x 14'	19' x 20'
Dayroom	25' x 25'	24' x 20'
Fitness	19' x 26'	32' x 20'
Apparatus Bays	76' x 78'	57' x 70'
Turnout Gear	22' x 12'	34' x 10'
EMS	13' x 10'	8' x 10'
Decon / Cleaning	22' x 22'	26' x 12'
Mezzanine Storage	22' x 60'	18' x 42'

