



# Town of Westwood

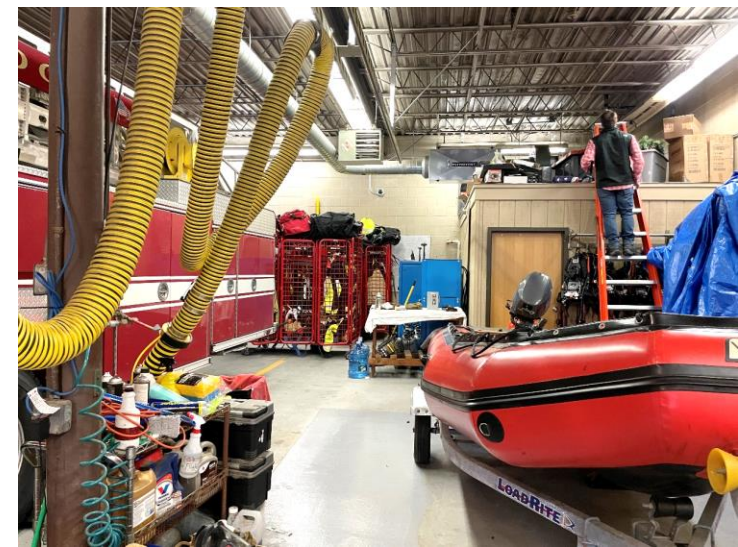
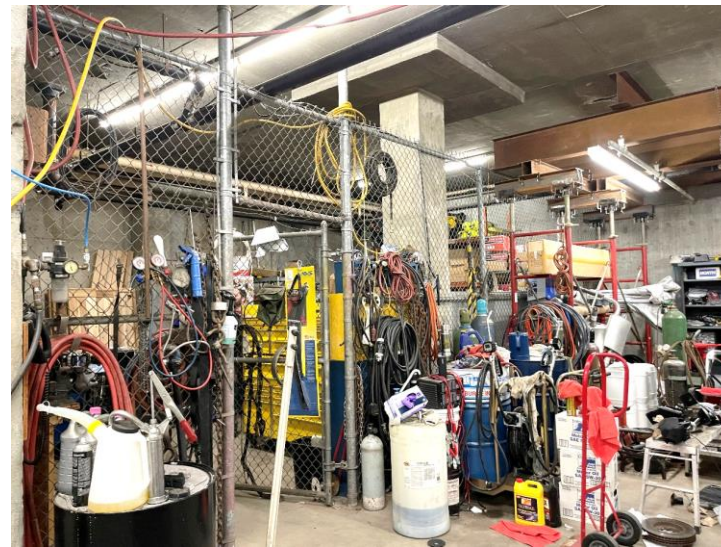
## Fire Station 1

### Feasibility Study Update



- ✓ Existing Facility Assessment
- ✓ Programming + Space Needs
- ✓ Operational Assessment
- ✓ Site Assessments
- ✓ Initial Design Options
- ✓ Programming Refinement
- Design Option Refinement
  - ❑ Building Imagery
  - ❑ Cost Estimates
  - ❑ Final Report Submission

## Feasibility Study Checklist



# Programming + Space Needs

SPACE NEEDS ANALYSIS		Westwood Fire: Station 1		Current Phase: (FS) Feasibility Study					
Chief John Deckers		Existing Location: 637 High St		23 Response(s) Received to Date					
ROOM or SPACE	Existing Area (sf)	Previous Study: 2014 Fire Portion of Public Safety	Area Standard	Suggested Program		Priority (sf)			Hazard Zone
				Number	Area (sf)	High	Medium	Low	
<b>VISITOR AREAS</b>									
Circulation - Vestibule - Public (Lower Level)	47	105	56	1	56	56			Low
Circulation - Vestibule - Public (Street Level)			56	1	56	56			Low
Circulation - Lobby - Public (Lower Level)	335	120	200	1	200	200			Low
Circulation - Memorabilia (Lower Level)			100	1	200	200			Low
Toilet - Designated Male			45	1	45	45			Low
Toilet - Designated Female		355	45	1	45	45			Low
Infrastructure - Janitor Closet			60	25	1	25			Low
Training - Classroom			60	32	1,024	1,024			Low
Media Operations Room			64	1	64	80			Low
Kitchenette			40	1	40	40			Low
Storage - Training Materials			64	1	64	64			Low
Storage - Tables & Chairs			10%	1	102	102			Low
Triage			130	1	130	130			Low
<b>VISITOR AREAS TOTALS:</b>	<b>751</b>	<b>1,681</b>			<b>2,889</b>	<b>2,067</b>	<b>838</b>		

<b>ADMINISTRATION</b>									
ROOM or SPACE	Existing Area (sf)	Previous Study: 2014 Fire Portion of Public Safety	Area Standard	Number	Area (sf)	High	Medium	Low	Hazard Zone
Conference Room		360	30	15	450	450			Low
Toilet - Designated Male	24	60	45	1	45	45			Low
Toilet - Designated Female	24	60	45	1	45	45			Low
Kitchenette			40	1	40	40			Low
Office - Manager			200	1	200	200			Low
Office - Chief	282	225	250	1	250	250			Low
Tit/Shwr - Chief			92	1	92	92			Low
Conference Area			18	6	108	108			Low
Office - Assistant Chief		150	200	1	200	200			Low
Office - EMS			120	2	240	200	40		Low
Conference Table			18	4	72	72			Low
Office - Fire Investigator			120	1	100	100			Low
Office - Fire Inspectors			120	3	300	300			Low
Office - Fire Prevention		200	250	1	250	250			Low
Office - Administrative Assistant			120	1	120	120			Low
Waiting Area			30	4	120	120			Low
Storage - Fire Prevention			64	1	64	64			Low
Copy / Supply Area	17		50	1	50	50			Low
Storage - Supply Closet		40	50	1	50	50			Low
Storage - Active Files	121	200	80	1	80	80			Low
Storage - Archives			200	1	300	300			Low
Storage - Closet			10	1	10	10			Low
Storage - Concessions			25	1	25	25			Low
Storage - General			80	1	80	80			Low
<b>ADMINISTRATION TOTALS:</b>	<b>796</b>	<b>1,495</b>			<b>3,291</b>	<b>3,251</b>	<b>40</b>		

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				Number	Area (sf)	High	Medium	Low	
<b>STAFF SUPPORT/LIVING/TRAINING</b>									
Circulation - Vestibule - Staff Entry			56	1	56	56			Low
Mail Room (Internal)			64	1	64	64			Low
Library / Resource / Study			30	3	90	90			Low
Tit/Shwr - Designated Female	44		92	1	92	92			Low
Tit/Shwr - Designated Male	95	360	92	2	184	184			Low
Tit/Shwr - Officer			92	1	92	92			Low
Laundry - Domestic			64	2	128	128			Low
Infrastructure - Janitor Closet			25	1	25	25			Low
Lockers - Personal - Gender Neutral		540	11	50	700	700			Low
Nursing / Wellness Room			50	1	50	-	50		Low
Training - Fitness Room	303	400	80	7	560	560			Low
Training - Mat / Floor			400	1	200	200			Low
Day Room		500	50	10	500	500			Low
Dining			30		360	360			Low
Kitchen		470	30	12	360	360			Low
Office - Company Officer			150	1	150	150			Low
Office - Driver / Engineer			120	1	120	120			Low
Office - Paramedic / Ambulance			50	3	150	150			Low
Office - Shift Commander			120	1	120	120			Low
Conference Table			18	4	72	72			Low
Sleeping Room - Officer	116		170	2	340	340			Low
Sleeping Room - Single		720	92	8	736	736			Low
Staff Workroom			32	2	64	64			Low
Storage - General	303		80	2	160	160			Low
Storage - Honor Guard			64	1	64	64			Low
<b>STAFF SUPPORT/LIVING/TRAINING TOTALS:</b>	<b>1,412</b>	<b>3,170</b>			<b>5,482</b>	<b>5,362</b>	<b>95</b>		

<b>OPERATIONS</b>									
ROOM or SPACE	Existing Area (sf)	Previous Study: 2014 Fire Portion of Public Safety	Area Standard	Number	Area (sf)	High	Medium	Low	Hazard Zone
Circulation - Vestibule - Negative Pressure			56	1	56	56			Medium
Lockers - Fire TOG - Gender Neutral	132	480	18	50	700	700			High
Apparatus - Center Bays			1,600	3	4,800	4,800			High
Apparatus - End Bays	3,974	4,786	1,760	2	3,520	3,520			High
Apparatus - Maintenance Bay	812	1,029	1,440	1	1,440	1,440			High
Decon - Gross	116	190	150	1	150	150			High
Decon - Laundry - Domestic			80	1	80	80			High
Decon - Laundry - TOG			200	1	200	280			High
Decon - Tit/Shwr - Designated Female			72	1	72	72			High
Decon - Tit/Shwr - Designated Male			72	1	72	72			High
Decon - SCBA Gear			64	1	64	64			High
Infrastructure - Janitor Closet			25	1	25	25			High
Office - Mechanic			120	1	120	120			High
Tit/Shwr - Gender Neutral			92	1	92	92			High
Infrastructure - Janitor Closet			25	1	25	25			High
Storage			64	1	64	64			High
SCBA Fill		100	100	1	100	100			High
SCBA Bottles			4	15	62	62			High
SCBA Compressor			50	1	80	80			High
Storage - Exterior Operations			144	1	144	144			High
Storage - Fuel Containers			25	1	25	25			High
Storage - General	509	80	80	1	80	80			High
Storage - Hose Racks			90	2	50	50			High
Storage - EMS / Medical - Grab-n-go	62	150	64	1	120	120			High
Storage - EMS / Medical - Bulk Storage	62	150	64	1	120	120			High
Storage - Parts			80	1	400	400			High
Storage - Tools			120	1	120	120			High
Training - Mezzanine			300	1	300	300			High
Workshop - Mechanic	1,029		380	1	380	380			High
<b>OPERATIONS TOTALS:</b>	<b>7,485</b>	<b>7,830</b>			<b>13,733</b>	<b>13,461</b>	<b>272</b>		

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<b>INFRASTRUCTURE</b>									
Circulation - Elevator		160	58	2	116	116			Low
Circulation - Stairs (sf/floor)	206		250	3	750	750			Medium
Circulation - Stairs (sf/floor)		1,500	250	2	500	500			Medium
Circulation - Stairs - Training (sf/floor)	516		350	3	1,050	1,050			Medium
Circulation - Fire Slide Chute			36	2	72	72			High
Infrastructure - BDA			25	1	25	25			Low
Infrastructure - Comms Closet (IDF)			25	1	25	25			Low
Infrastructure - Electrical Closet			25	1	25	25			Low
Infrastructure - Electrical Room	239	100	150	1	150	150			Low
Infrastructure - Electrical - Emergency			25	1	25	25			Low
Infrastructure - Elevator Machine Room		50	58	1	58	58			Low
Infrastructure - Maintenance - Storage			64	2	100	100			Low
Infrastructure - Mechanical	235	300	500	1	500	500			Low
Infrastructure - Radio			40	1	40	40			Low
Infrastructure - Recycling			25	1	25	25			Low
Infrastructure - Server (MDF)			200	1	200	200			Low
Infrastructure - Trash			50	1	50	50			Low
Infrastructure - Water Entry / Sprinkler			100	1	100	100			High
Storage - Grounds Equipment			64	1	64	64			Low
<b>INFRASTRUCTURE TOTALS:</b>	<b>1,296</b>	<b>2,110</b>			<b>3,875</b>	<b>3,875</b>			
<b>SUB TOTALS:</b>									
	<b>11,740</b>	<b>16,286</b>			<b>29,271</b>	<b>28,017</b>	<b>1,245</b>		
<b>GROSSING FACTOR</b>									
Circulation & Infrastructure Increase	26%	25%							
<b>GROSSING FACTOR TOTALS:</b>	<b>3,062</b>	<b>4,071</b>			<b>30,00%</b>	<b>30%</b>	<b>374</b>		
					<b>8,781</b>	<b>8,405</b>			
<b>GRAND TOTALS:</b>									
	<b>14,802</b>	<b>20,357</b>			<b>38,052</b>	<b>36,422</b>	<b>1,619</b>		

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Toilet - Designated Female			45	1	45	45			
Infrastructure - Janitor Closet		60	25	1	25	25			
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Media Operations Room			64	1	64	80			
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Tlt/Shwr - Designated Male	95		92	2	184	184			
Tlt/Shwr - Officer			92	1	92	92			
Laundry - Domestic		180	64	2	128	128			
Infrastructure - Janitor Closet			25	1	25	128			
Lockers - Personal - Gender Neutral		540	11	50	700	700			
Nursing / Wellness Room			50	1	50	-	50		
Training - Fitness Room	303	400	80	7	560	560			
Training - Mat / Floor			400	1	200	200			
Day Room		500	50	10	500	500			
Dining			30	12	360	360			
Kitchen		470	30		360	360			
Office - Company Officer			150	1	150	150			
Office - Driver / Engineer			120	1	120	120			
Office - Paramedic / Ambulance			50	3	150	150			
Office - Shift Commander			120	1	120	120			
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Sleeping Room - Officer	116		170	2	340	340			
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Tlt/Shwr - Gender Neutral			92	1	92	92		
Infrastructure - Janitor Closet			25	1	25	25		
Storage			64	1	64	64		
SCBA Fill		100	100	1	100	100		
SCBA Bottles			4	15	62	62		
SCBA Compressor			50	1	80	80		
Storage - Exterior Operations			144	1	144	144		
Storage - Fuel Containers			25	1	25	25		
Storage - General	509	80	80	1	80	80		
Storage - Hose Racks		90	25	2	50	50		
Storage - EMS / Medical - Grab-n-go	62	150	64	1	120	120		
Storage - EMS / Medical - Bulk Storage	62	150	64	1	120	120		
Storage - Parts			80	1	400	400		
Storage - Tools			120	1	120	120		
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INFRASTRUCTURE								
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Infrastructure - BDA			25	1	25	25		
Infrastructure - Comms Closet (IDF)			25	1	25	25		
Infrastructure - Electrical Closet			25	1	25	25		
Infrastructure - Electrical Room	239	100	150	1	150	150		
Infrastructure - Electrical - Emergency			25	1	25	25		
Infrastructure - Elevator Machine Room		50	58	1	58	58		
Infrastructure - Maintenance - Storage			64	2	100	100		
Infrastructure - Mechanical	235	300	500	1	500	500		
Infrastructure - Radio			40	1	40	40		
Infrastructure - Recycling			25	1	25	25		
Infrastructure - Server (MDF)			200	1	200	200		
Infrastructure - Trash			50	1	50	50		
Infrastructure - Water Entry / Sprinkler			100	1	100	100		
Storage - Grounds Equipment			64	1	64	64		
<b>INFRASTRUCTURE TOTALS:</b>	<b>1,296</b>	<b>2,110</b>			<b>3,875</b>	<b>3,875</b>		

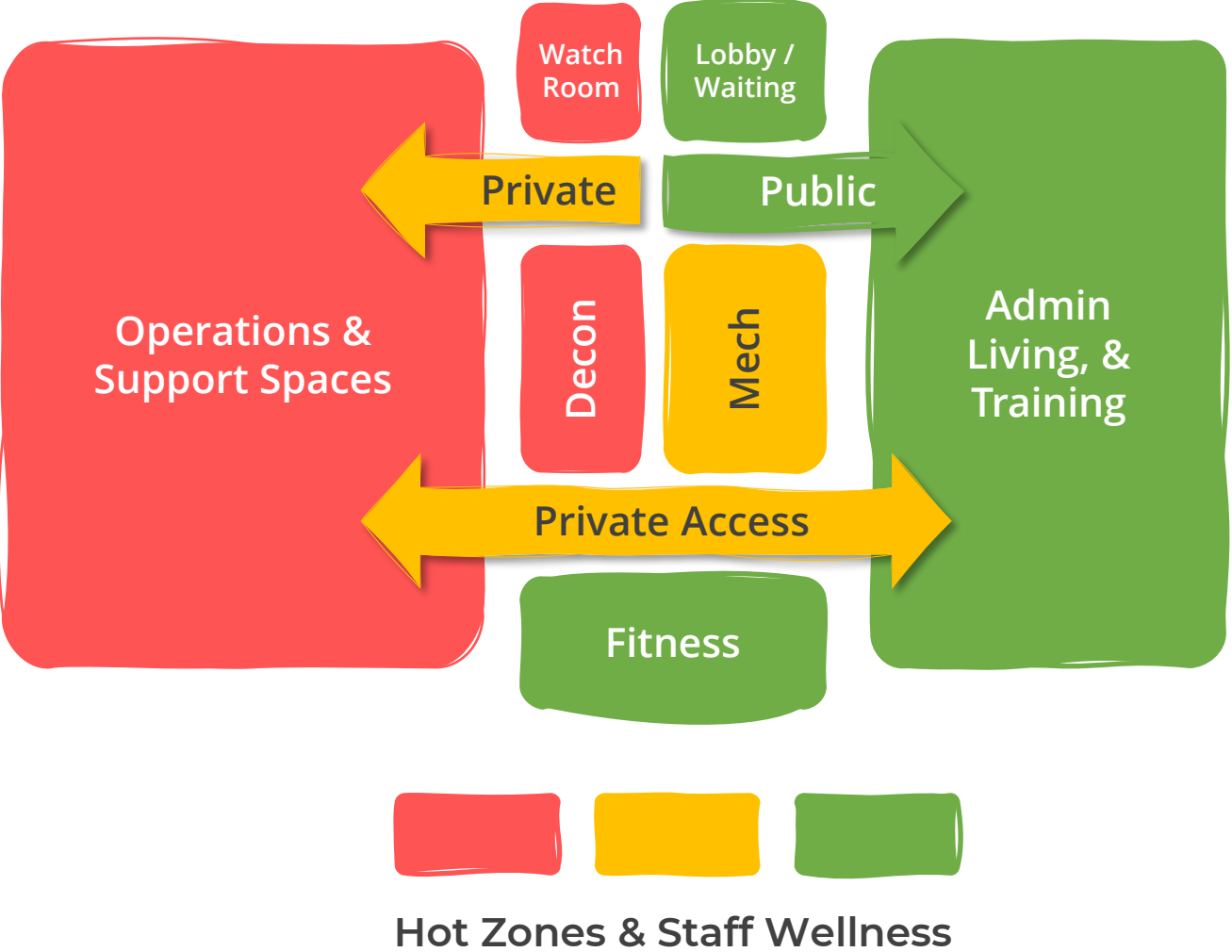
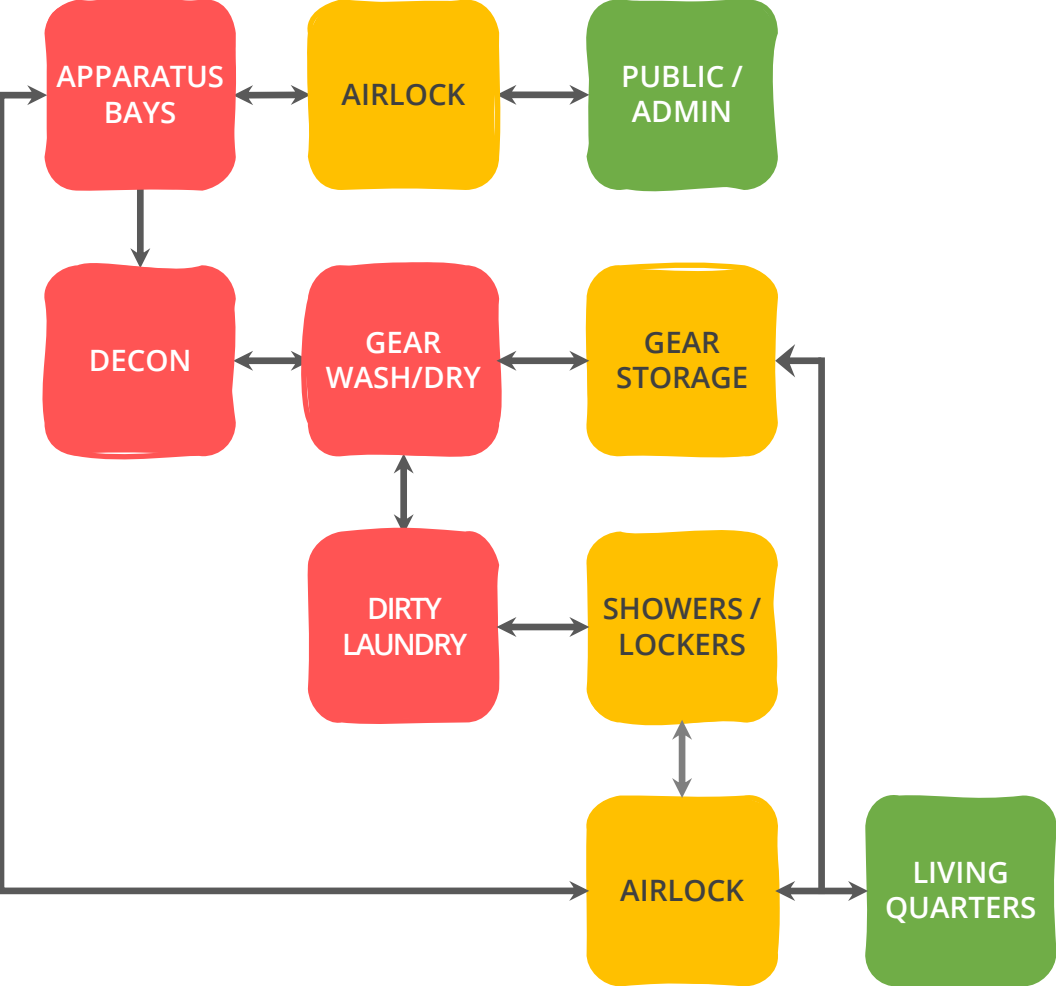
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<b>SUB TOTALS:</b>				<b>11,740</b>	<b>16,286</b>	<b>29,271</b>	<b>28,017</b>	<b>1,245</b>
<b>GROSSING FACTOR</b>								
Circulation & Infrastructure Increase				26%	25%	<b>30.00%</b>	<b>30%</b>	<b>374</b>
<b>GROSSING FACTOR TOTALS:</b>				<b>3,062</b>	<b>4,071</b>	<b>8,781</b>	<b>8,405</b>	
<b>GRAND TOTALS:</b>				<b>14,802</b>	<b>20,357</b>	<b>38,052</b>	<b>36,422</b>	<b>1,619</b>
				estimated	estimated	246.06%	Increase over existing	

# Programming + Space Needs

## Westwood Fire: Station 1

BUILDING AREA:	Existing (sf)	Space Needs	Future Growth (Included)	Notes:
VISITOR AREAS TOTALS:	751	2,067	544	New Training/Meeting room with support spaces
ADMINISTRATION TOTALS:	796	3,251	400	Expanded Administrative area
STAFF SUPPORT/LIVING/TRAINING TOTALS:	1,412	5,362	492	Updated Sleeping, Fitness, and built-in training spaces
OPERATIONS TOTALS:	7,485	13,461	84	Addresses new Health, Safety, and Wellness requirements/codes
INFRASTRUCTURE TOTALS:	1,296	3,875	0	Energy efficient modern infrastructure
SUB TOTALS:	11,740	28,017	1,520	
GROSSING FACTOR TOTALS:	3,062	8,405	456	
<b>GRAND TOTALS:</b>	14,802	<b>36,422</b>	1,976	
			5.43%	

# Fire Department Space Planning Example



**NFPA 1500 (2021):**  
Standard on Fire Department Occupational Health, Safety, and Wellness Program

**NFPA 1581 (2022):**  
Standard on Fire Department Infection Control Program

# Community + Training Opportunities





- A. Addition / Renovation at Existing Fire Station
- B. Town Owned High Street Site
- C. Town Hall + Police Station Site
- D. New Construction at Existing Fire Station

# Site Options



## Pros

- On existing Town land.
- Response study indicates response time under 3 minutes.

## Cons

- New building size will not fully meet program.
- Significant modifications to existing structure, systems, finishes, and envelope.
- Temp relocation and phased construction.
- Challenging site topography

## Addition / Renovation at Existing Fire Station



## Pros

- On existing Town land.
- Will meet current and future programmatic needs
- Will meet required parking needs.
- Response study indicates response time under 3 minutes.

## Cons

- Landlocked site with no street access.
- No street presence to the new facility.
- Close proximity to residential neighborhood.
- Town trail passes through the lot.

## New Building at Town Owned High Street Site



## Pros

- On existing Town land.
- Will meet current and future programmatic needs
- Will meet required parking needs.
- Response study indicates response time under 3 minutes.
- Creates public safety campus.
- No temporary or phased construction for fire department.

## Cons

- Town will need to plan for relocation and new construction of Town Hall.
- Moderate construction impacts on police operations.

# New Building at Town Hall Site



## Pros

- On existing Town land.
- Will meet current and future programmatic needs.
- Response study indicates response time under 3 minutes.

## Cons

- Temp relocation and phased construction.
- Challenging site topography.

# New Building at Existing Fire Station



- ✓ Existing Facility Assessment
- ✓ Programming + Space Needs
- ✓ Operational Assessment
- ✓ Site Assessments
- ✓ Initial Design Options
- ✓ Programming Refinement
- **Design Option Refinement**
  - ❑ Building Imagery
  - ❑ Cost Estimates
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Norfolk Fire



Westwood Fire Station 2



Stoneham Fire Sub Station

# What's Next

**Thank You**