



FIRE STATION

MAYNARD
project status update
may 24 2016



PRESENTATION AGENDA

| PROCESS | EXISTING SUMMER ST SITE | ROCKLAND AVE SITE | TOWN HALL SITE | PROCESS |
|---|-------------------------|-------------------|----------------------|---------------------------|
| Standards, Guidelines, Rules & Regs., Codes, etc. | Location | Location | Location | Location Cost Comparisons |
| Programming Surveys | Primary Deficiencies | Response Time | Primary Deficiencies | Project Timeline |
| Space Needs Analysis | Existing Conditions | | Existing Conditions | |
| Room Diagrams | Layout Studies | | Plan Studies | |
| | | | Preferred Option | |
| | | | Massing | |



The goal of this survey is to collect the necessary data from all of the departments involved in the project in order to define the space and operational needs for the facility.

Is your staff volunteer, paid, or a combination?

Call/Volunteer
 Paid
 Combination
 Other _____

How many shifts currently run per day?

What is your current staffing level per shift?

What is your current administrative staffing level?

How many Apparatus Bays are required for the project?

Where is Apparatus cleaning & maintenance conducted?

Off-Site
 On-Site Maintenance Bay
 On-Site Apparatus Bay
 On-Site Exterior Apron
 Undetermined
 Other _____

SURVEY SUMMARY:

Is your staff volunteer, paid, or a combination?

| | |
|----------------|-------|
| Call/Volunteer | 33.3% |
| Paid | 66.6% |
| Combination | 0% |
| Other | 0% |

Shifts currently run per day?

| | |
|---|-------|
| 1 | 66.6% |
| 2 | 33.3% |
| 3 | 0% |
| 4 | 0% |

Current staffing level per shift?

| | |
|---|-------|
| 1 | 0% |
| 2 | 0% |
| 3 | 0% |
| 4 | 0% |
| 5 | 33.3% |
| 6 | 26.6% |
| 7 | 0% |

Current administrative staffing level?

| | |
|---|-------|
| 1 | 0% |
| 2 | 0% |
| 3 | 33.3% |
| 4 | 33.3% |
| 5 | 33.3% |
| 6 | 0% |
| 7 | 0% |

Apparatus Bays required for the project?

| | |
|---|-------|
| 1 | 0% |
| 2 | 0% |
| 3 | 0% |
| 4 | 33.3% |
| 5 | 66.6% |
| 6 | 0% |
| 7 | 0% |

Where is Apparatus cleaning & maintenance conducted?

| | |
|-------------------|-------|
| Off-Site | 0% |
| On-Site Maint Bay | 33.3% |
| On-Site App Bay | 66.6% |
| On-Site Ext Apron | 33.3% |
| Undetermined | 0% |

PROGRAMMING SURVEYS



FEMA
U.S. Fire Administration

ADA
Americans with Disabilities Act

MAAB
Massachusetts Architectural Access Board

NFPA 1500:
Standard on fire department occupational safety and health program

NFPA 1581:
Standard on fire department infection control program

NFPA 1710/1720:
Standard for the organization and deployment of fire suppression operations, emergency medical operations and special operations to the public

MASSACHUSETTS BASE BUILDING CODES

| International Codes | Massachusetts Regulations |
|---|---|
| IBC - International Building Code | 780 CMR - MA Amendments to the IBC |
| IEBC - International Existing Building Code | 527 CMR - MA fire prevention & electrical regulations |
| IECC - International Energy Conservation Code | 521 CMR - MA accessibility regulations |
| IMC - International Mechanical Code | 248 CMR - MA plumbing regulations |
| IFC - International Fire Code | 524 CMR - MA elevator regulations |

STANDARDS, GUIDELINES, RULES & REGULATIONS, and CODES

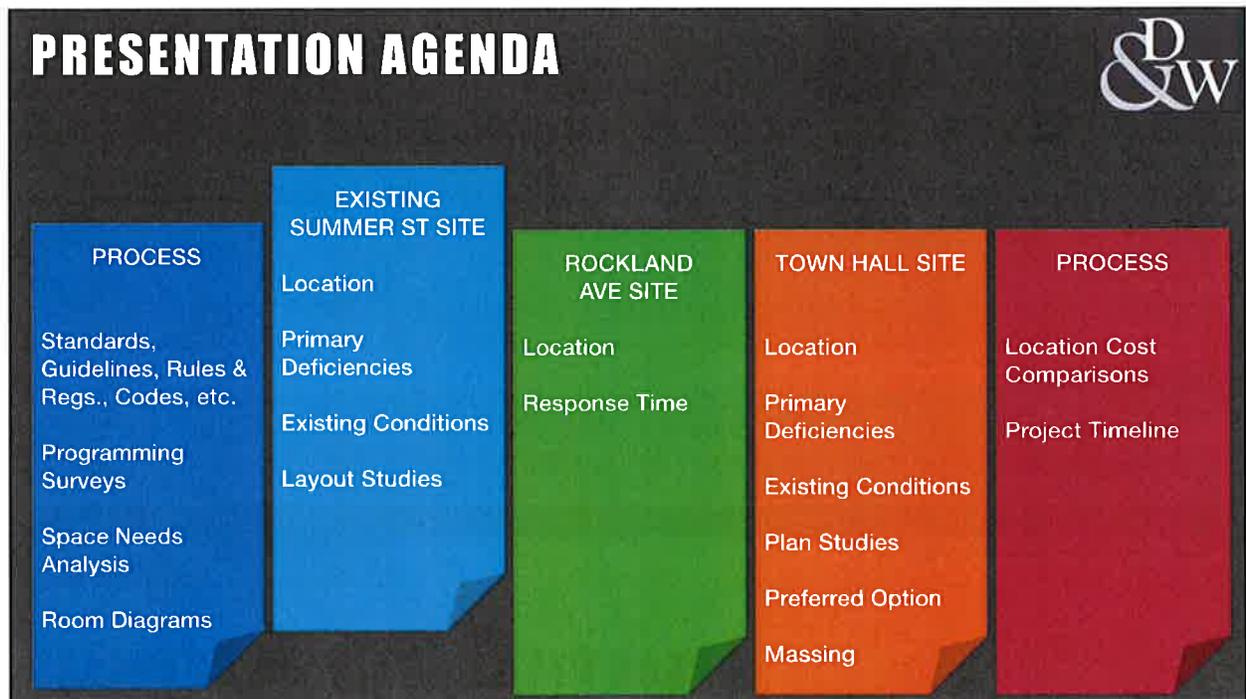
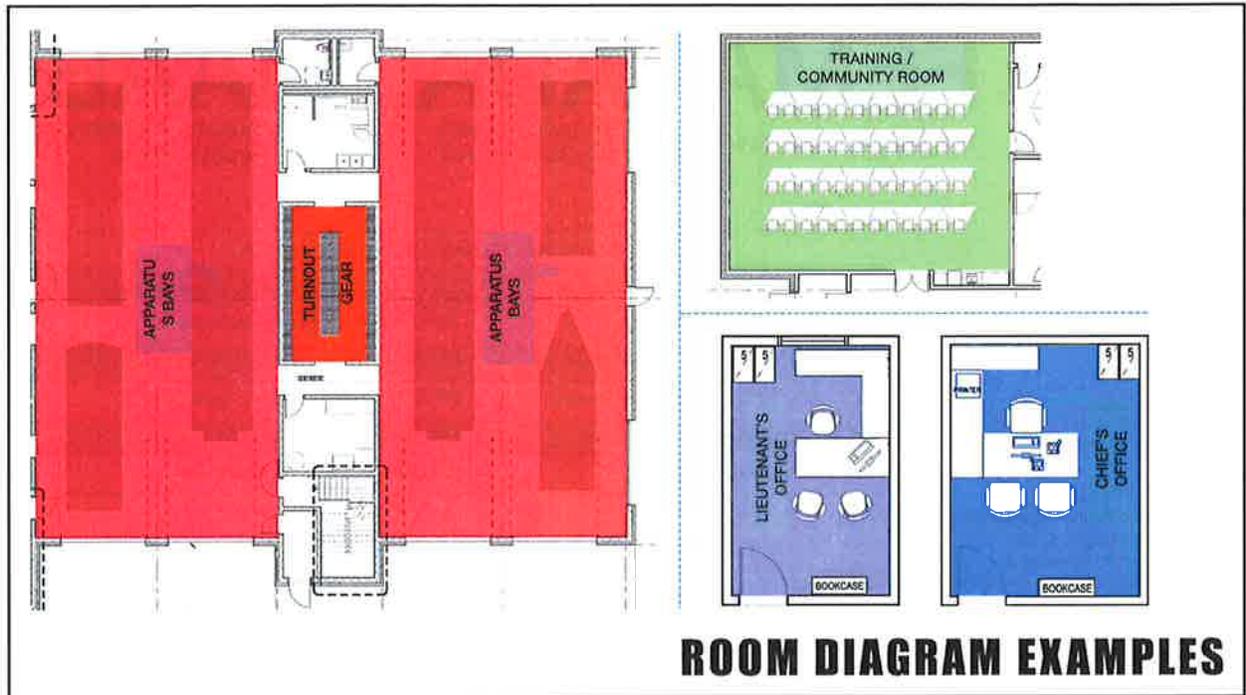
| *PROGRAMMED SPACES | Existing | Suggested or Calculated | SPACE NEEDS ALLOCATION | | | Standalone Option Existing Site or Rockland Avenue | Standalone Option Town Hall | Addition / Renovation Option Town Hall |
|-----------------------|-----------------|-------------------------|------------------------|-----------------|-------------|--|-----------------------------|--|
| | | | High | Medium | Low | | | |
| Public Areas | 368 | 1,563 | 1,308 | 255 | 0 | 1,308 | 333 | 1,380 |
| Administration | 2,155 | 2,803 | 1,557 | 1,246 | 0 | 1,557 | 1,675 | 2,957 |
| Living Areas | 2,324 | 2,903 | 2,460 | 455 | 0 | 2,460 | 2,481 | 2,748 |
| Operations | 2,432 | 10,200 | 8,300 | 1,900 | 0 | 8,300 | 7,986 | 8,332 |
| Operation Support | 598 | 1,996 | 1,408 | 558 | 0 | 1,408 | 1,101 | 1,644 |
| Infrastructure | 788 | 1,510 | 1,510 | 0 | 0 | 1,510 | 1,459 | 1,115 |
| Net Subtotals | 8,665 | 20,975 | 16,543 | 4,414 | 0 | 16,543 | 15,035 | 18,176 |
| AREA INCREASES | | | | | | | | |
| Circulation | | 3,146 | 2,466 | 677 | 0 | 2,466 | 1,402 | 0 |
| Infrastructure | 1,282 | 3,146 | 2,466 | 677 | 0 | 2,466 | 1,954 | 2,056 |
| Common Spaces | | 0 | 0 | 0 | 0 | 0 | 0 | 2,863 |
| Subtotals | 1,282 | 6,292 | 4,932 | 1,354 | 0 | 4,932 | 3,356 | 4,919 |
| GRAND TOTALS | 9,947 sf | 27,267 sf | 21,475 sf | 5,768 sf | 0 sf | 21,475 sf | 18,391 sf | 23,095 sf |

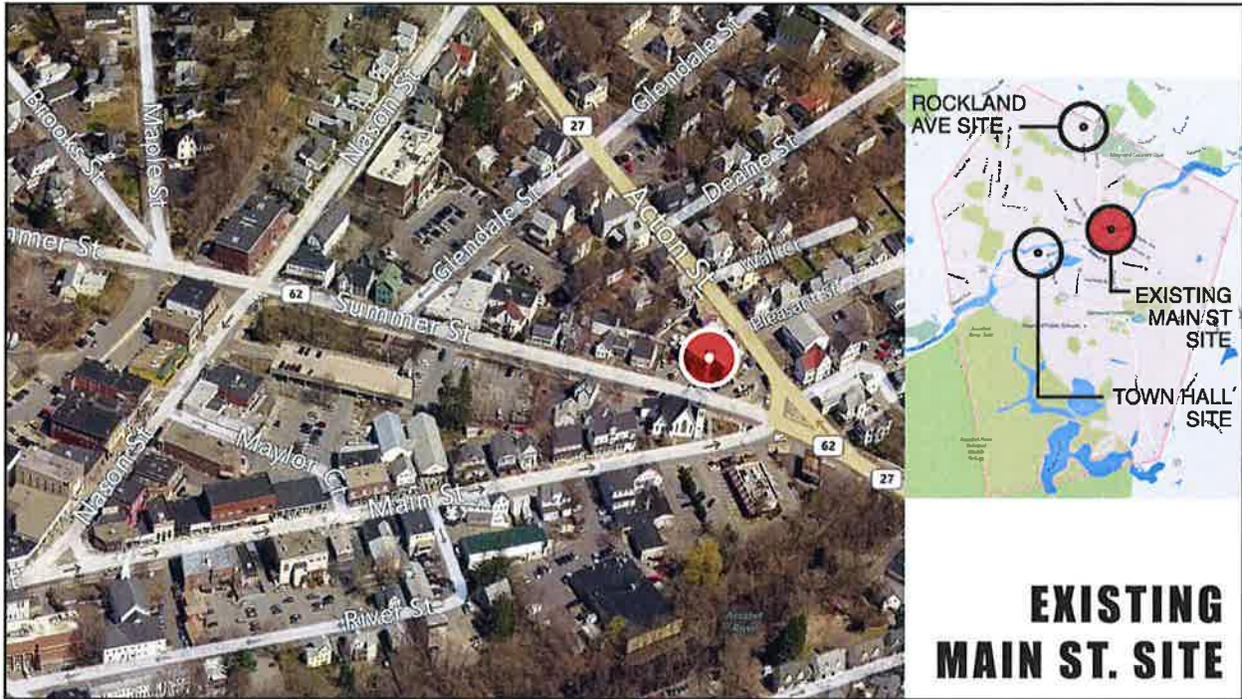
*Analysis based on 50-year projected facility lifecycle

| | |
|-----------------------------|-----------------|
| Remaining Municipal Offices | 2,382 |
| Total | **25,477 |

(*15,792 sf Renovation / 9,685 sf New)

SPACE NEEDS ANALYSIS SUMMARY





FIRE STATION PRIMARY DEFICIENCIES

Comprehensive Renovation or Facility Replacement

Hazardous Materials

*Removal of Asbestos, PCB's, Lead, & Mercury

Site

*Purchase 3-4 Adjacent Lots, Demolish, & Regrade
Full depth pavement reconstruction of entire site

Structure

Repair exposed Concrete Slabs
Repair deteriorating Exterior Masonry
*Comprehensive upgrade of Structural System to meet current codes & seismic requirements

Architectural Elements

*Drastically undersized to meet current needs
*Comprehensive upgrade to meet current Accessibility requirements, including an Elevator
*Comprehensive upgrade to meet current Life Safety requirements
Comprehensive replacement of all interior finishes
Comprehensive replacement of all Fixtures, Furnishings, & general Equipment
Comprehensive replacement of Roofing System

FIRE STATION PRIMARY DEFICIENCIES

Comprehensive Renovation or Facility Replacement

Building Systems

*Full sprinkler system required

*Comprehensive replacement of Water Piping, Drainage Piping & Plumbing Fixtures

Installation of a Gas/Oil Separator in Apparatus Bays (requires replacement of entire slab)

Update existing Gas Piping system

*Comprehensive replacement of Heating System

Installation of a Mechanical Ventilation System

Installation of Exhaust Air Fan System

Installation of an Air Conditioning System

Update existing Vehicle Exhaust Capture System

Comprehensive replacement of Building Controls

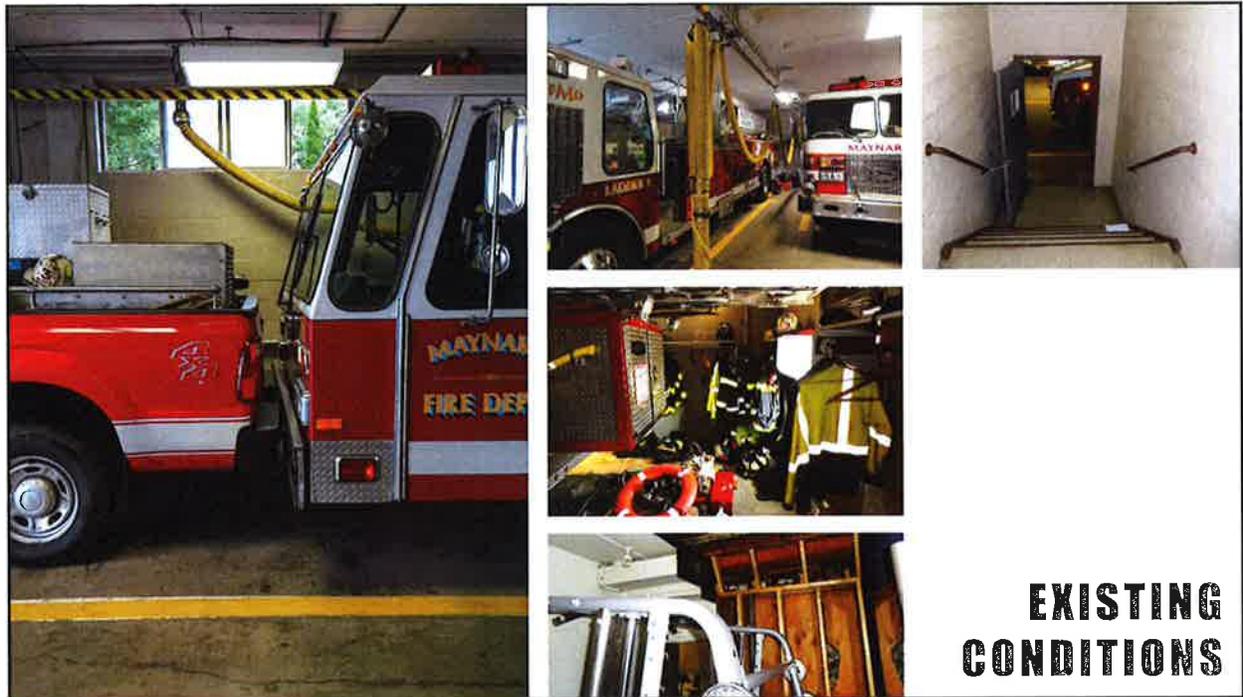
Comprehensive replacement of Main Electrical* System, including Panelboards

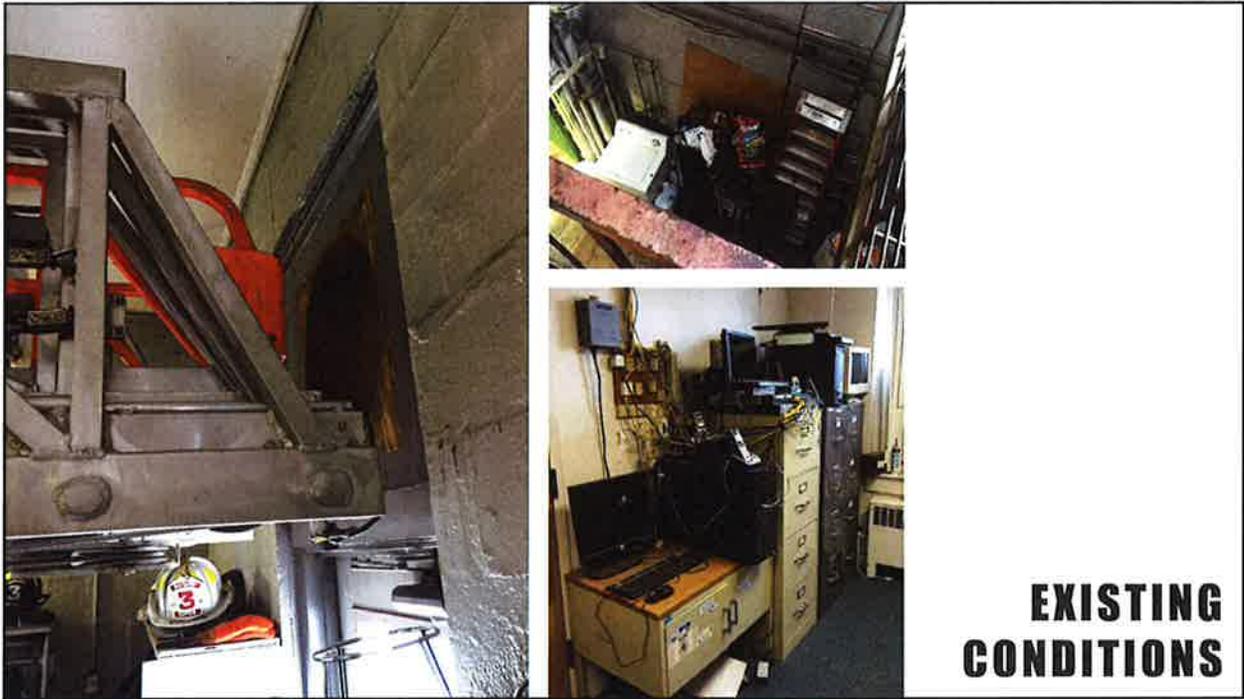
Comprehensive replacement of Backup Electrical* System, including Generator

Comprehensive replacement of Fire Alarm System*

Comprehensive replacement of Lighting Systems

Installation of a Lightning Protection System







LAYOUT STUDIES

PRESENTATION AGENDA



PROCESS

- Standards, Guidelines, Rules & Regs., Codes, etc.
- Programming Surveys
- Space Needs Analysis
- Room Diagrams

EXISTING SUMMER ST SITE

- Location
- Primary Deficiencies
- Existing Conditions
- Layout Studies

ROCKLAND AVE SITE

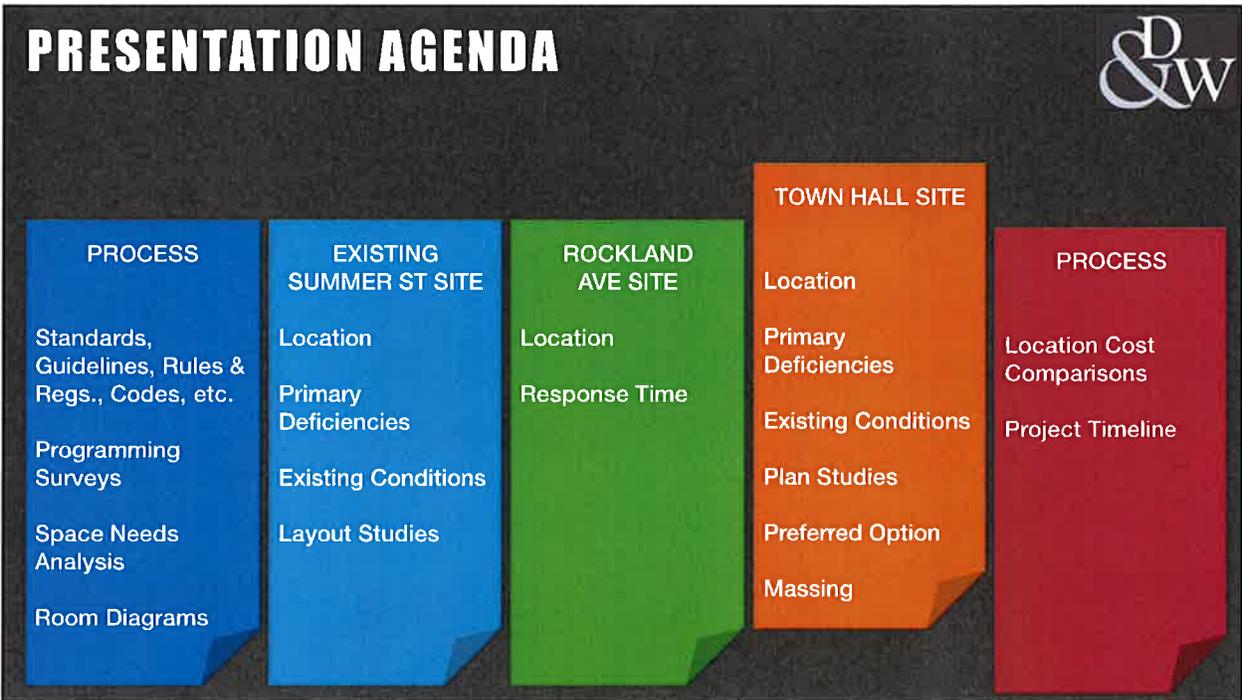
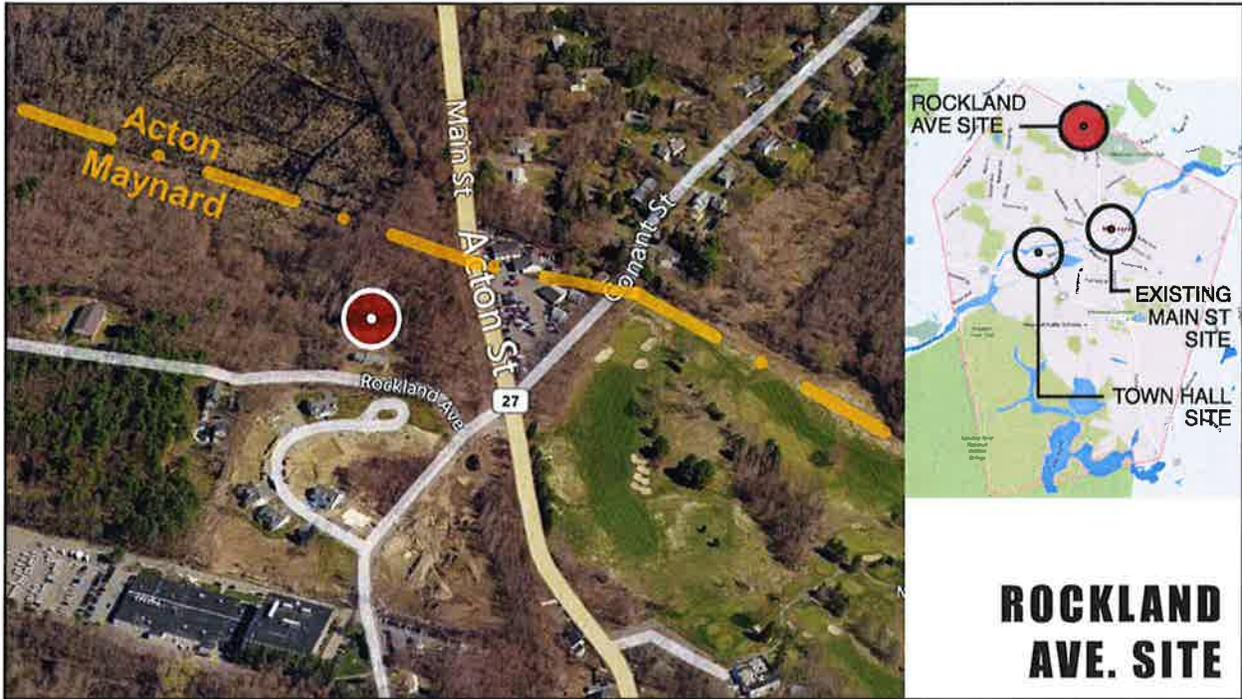
- Location
- Response Time

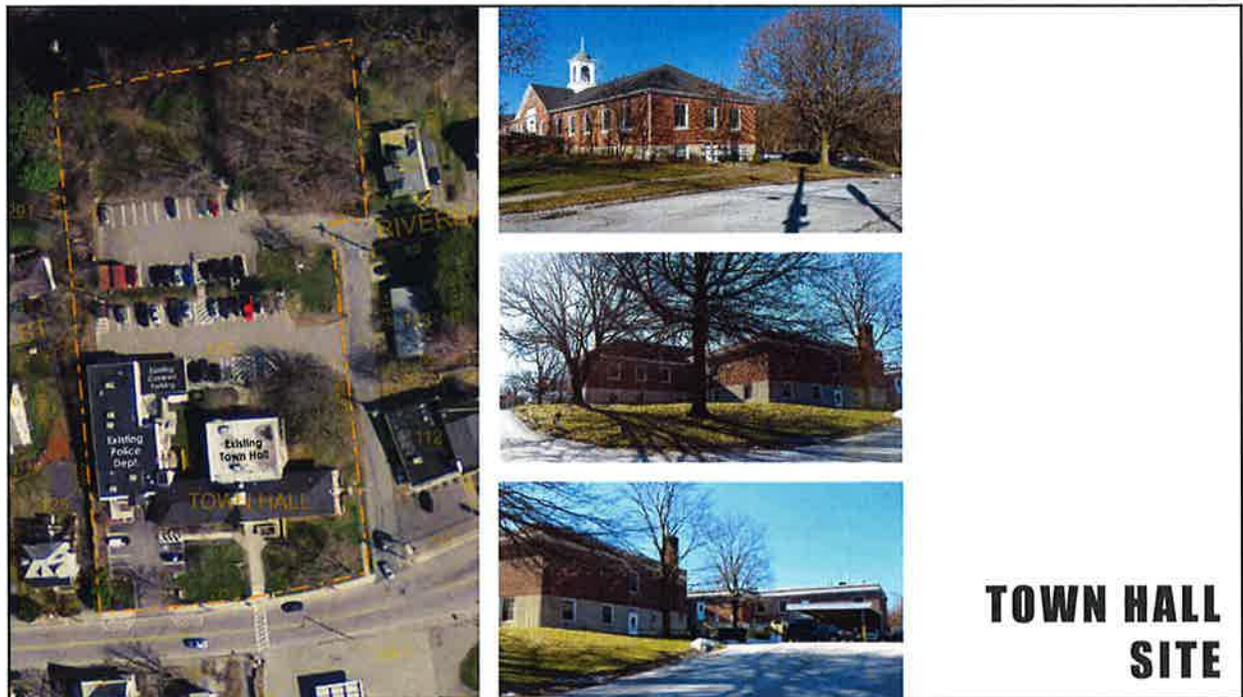
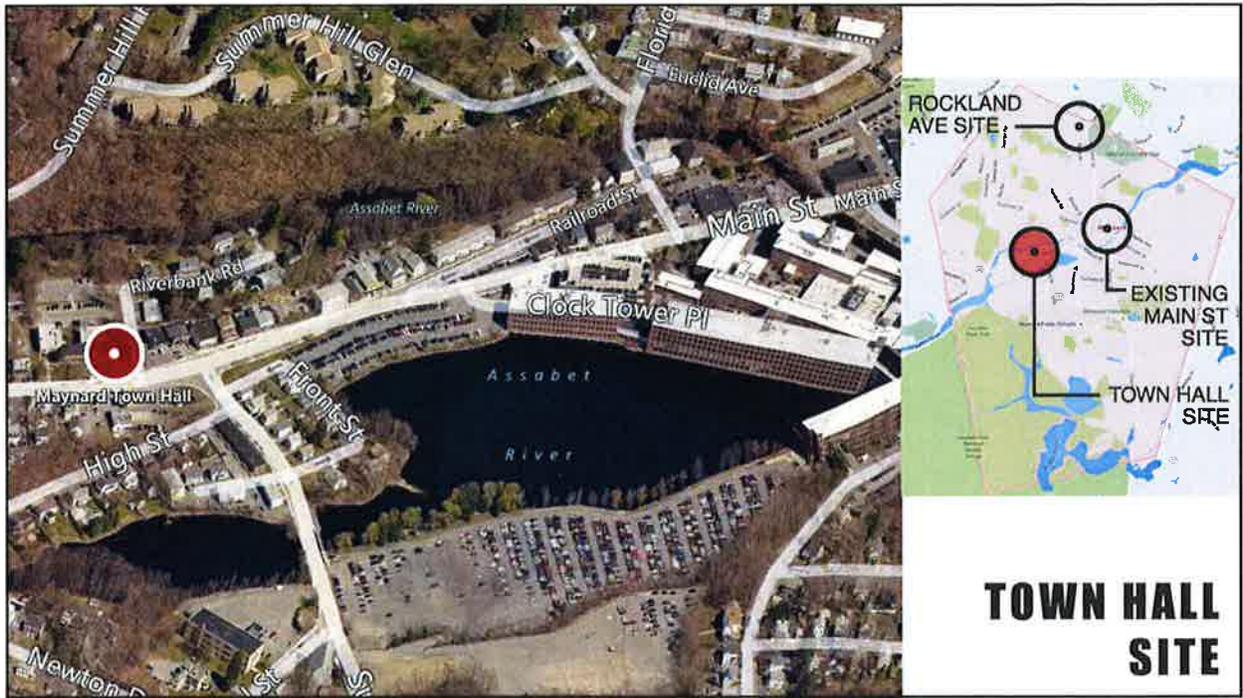
TOWN HALL SITE

- Location
- Primary Deficiencies
- Existing Conditions
- Plan Studies
- Preferred Option
- Massing

PROCESS

- Location Cost Comparisons
- Project Timeline





TOWN HALL PRIMARY DEFICIENCIES

Partial Renovation and Addition

Hazardous Materials

Removal of Asbestos, PCB's, Lead, & Mercury

Site

No Stormwater Detention

Additional Parking needed

Structure

Repair deteriorating Exterior Masonry

Minor Seismic Upgrades

Architectural Elements

Low Floor-to-Floor heights

Minor Accessibility Upgrades

Upgrade interior Finishes

Upgrade Fixtures, Furnishings, & general Equipment

Add Path of Egress and Exterior Stairs

Replace Meeting Room Egress Stairs

TOWN HALL PRIMARY DEFICIENCIES

Partial Renovation and Addition

Building Systems

Full sprinkler system required

Partial replacement of Plumbing Fixtures

Upgrades to HVAC System & Building Controls

Replace Single-Phase Electrical Service &
Panelboards with 3-Phase Service

Replace existing Generator

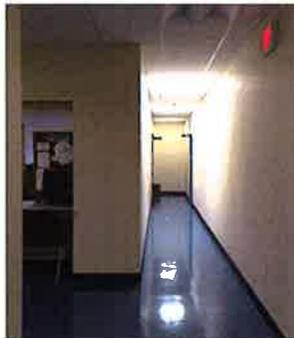
Upgrade existing Fire Alarm System

Upgrade existing Lighting Systems & Controls

Renovate Head-End Room



**EXISTING
CONDITIONS**



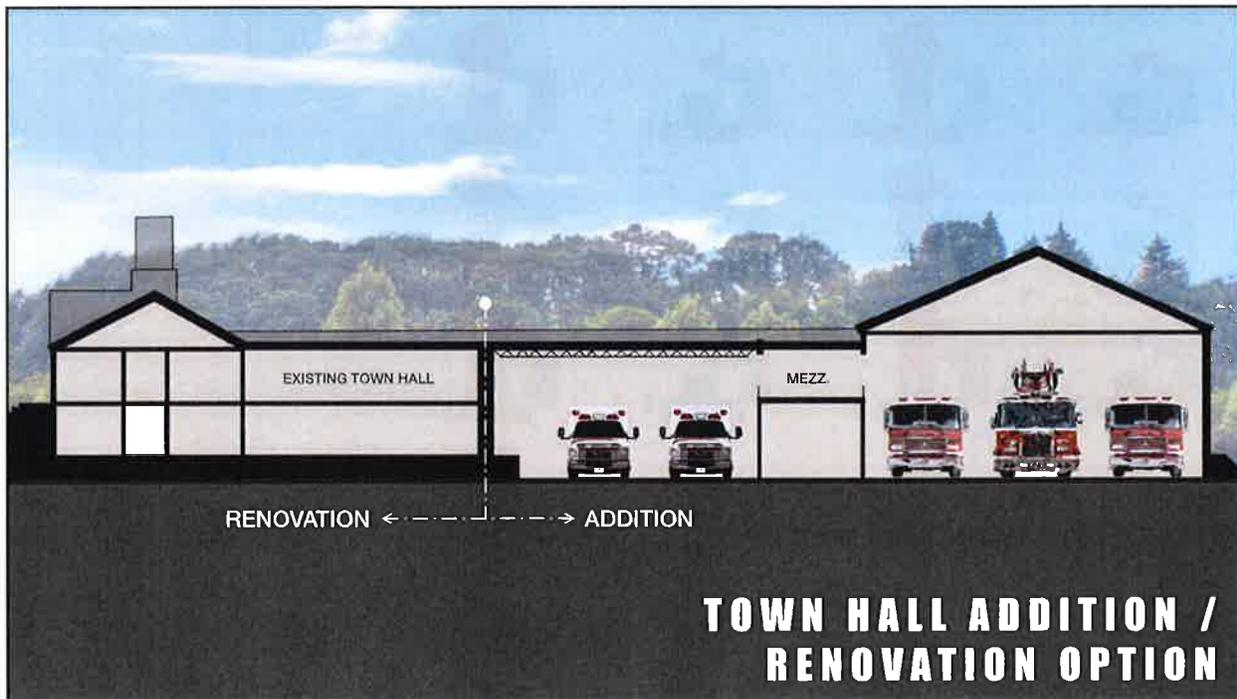
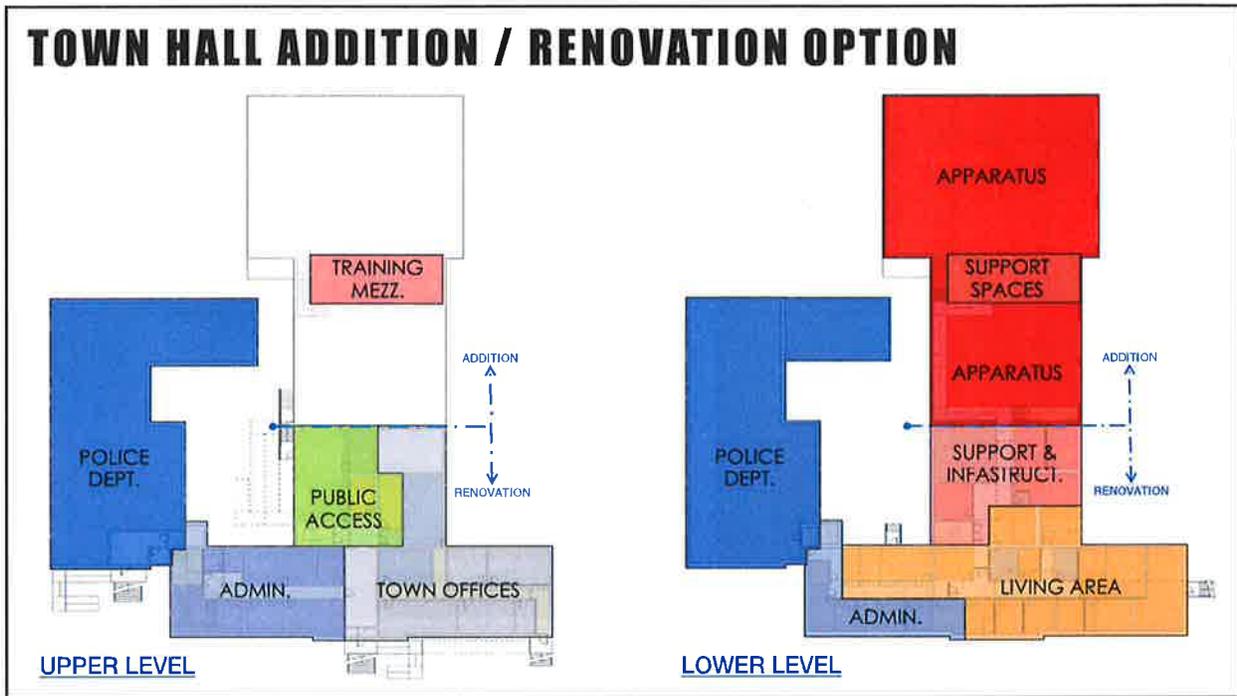
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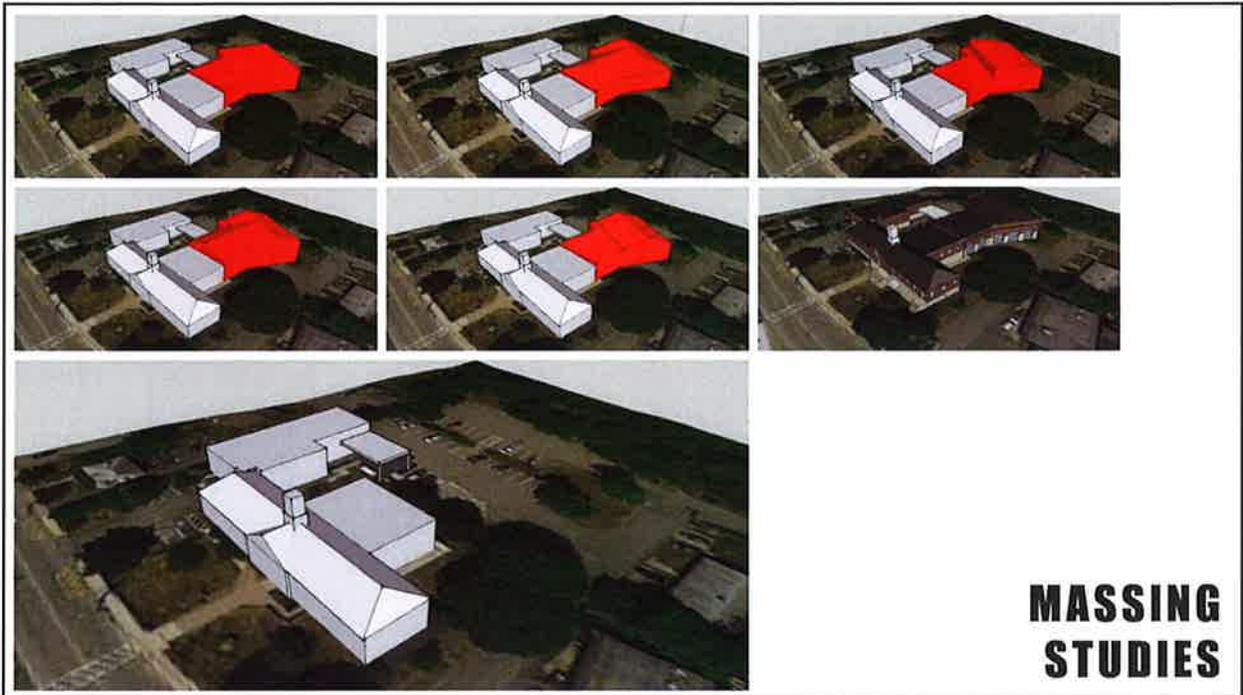


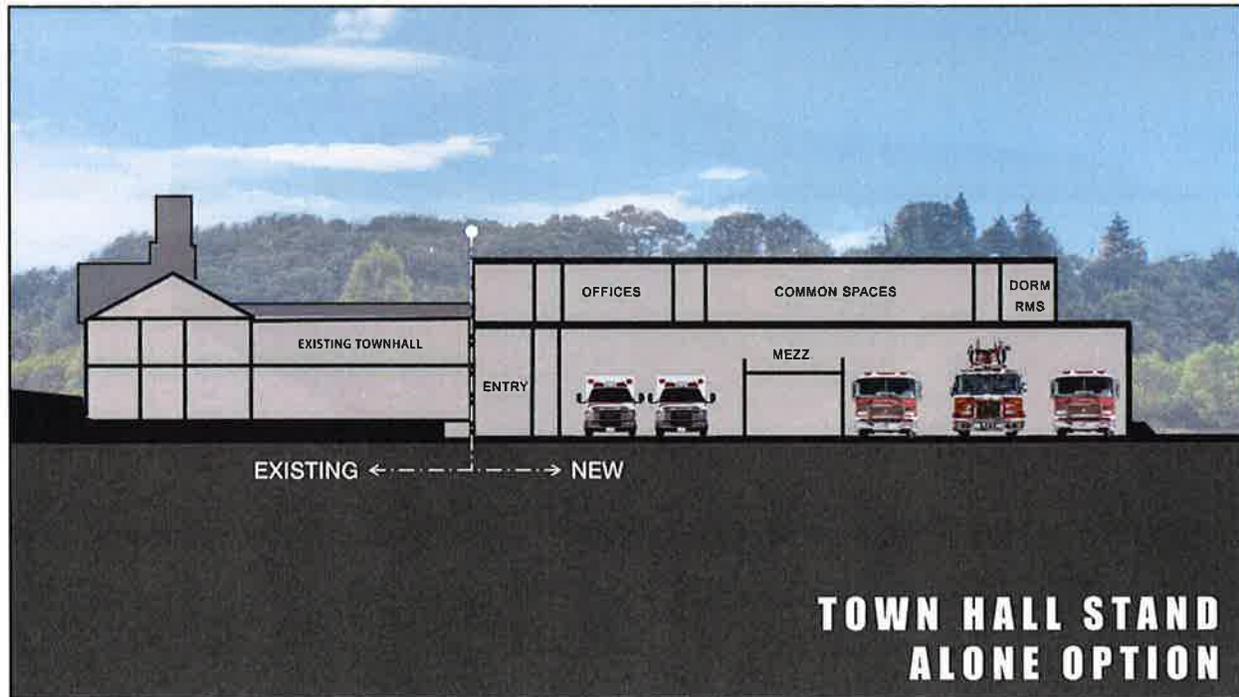
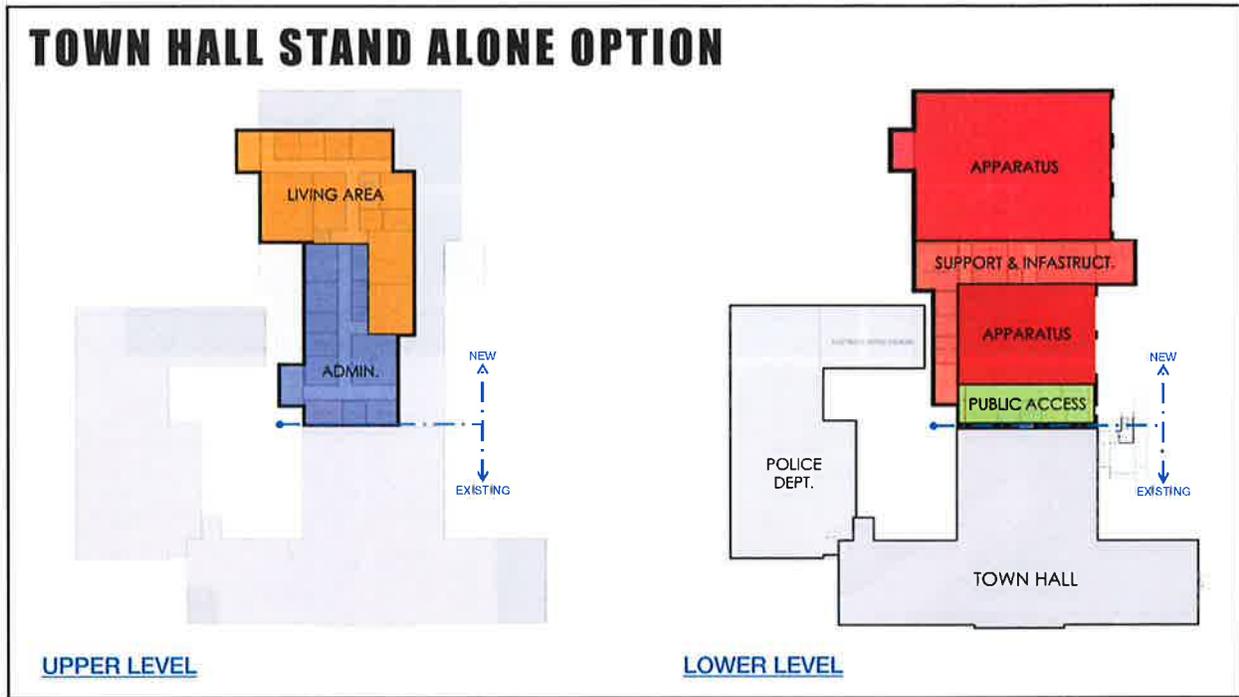
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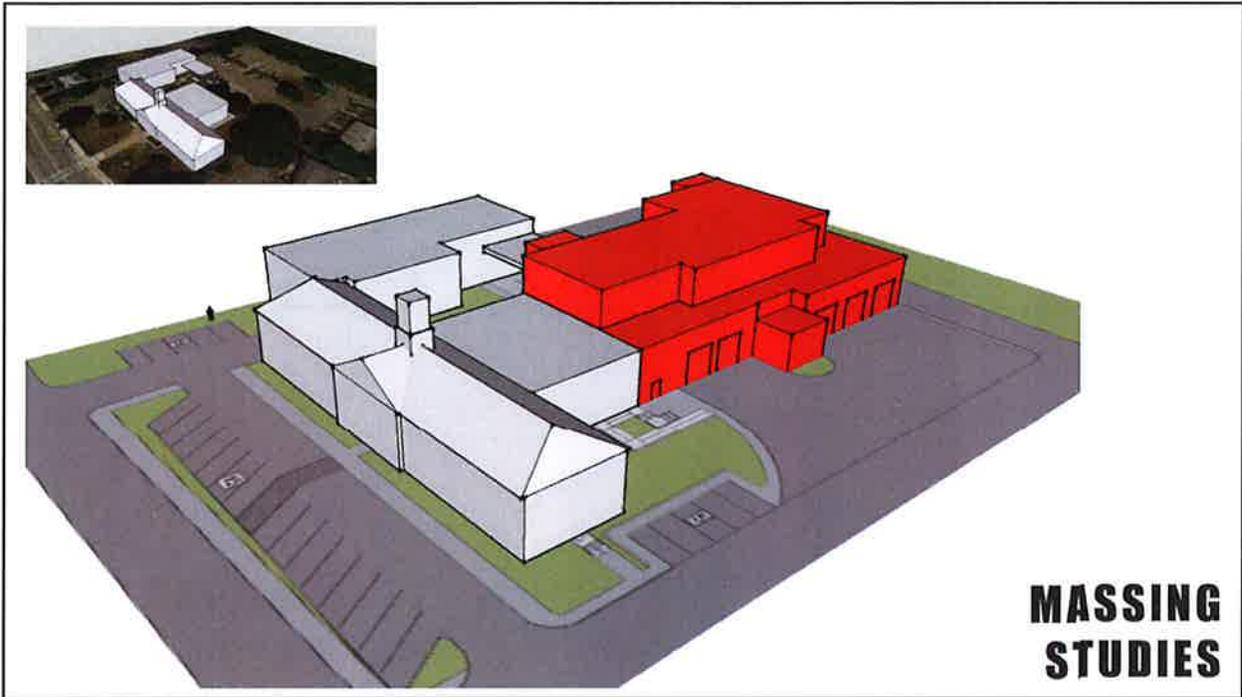


**PLAN
STUDIES**









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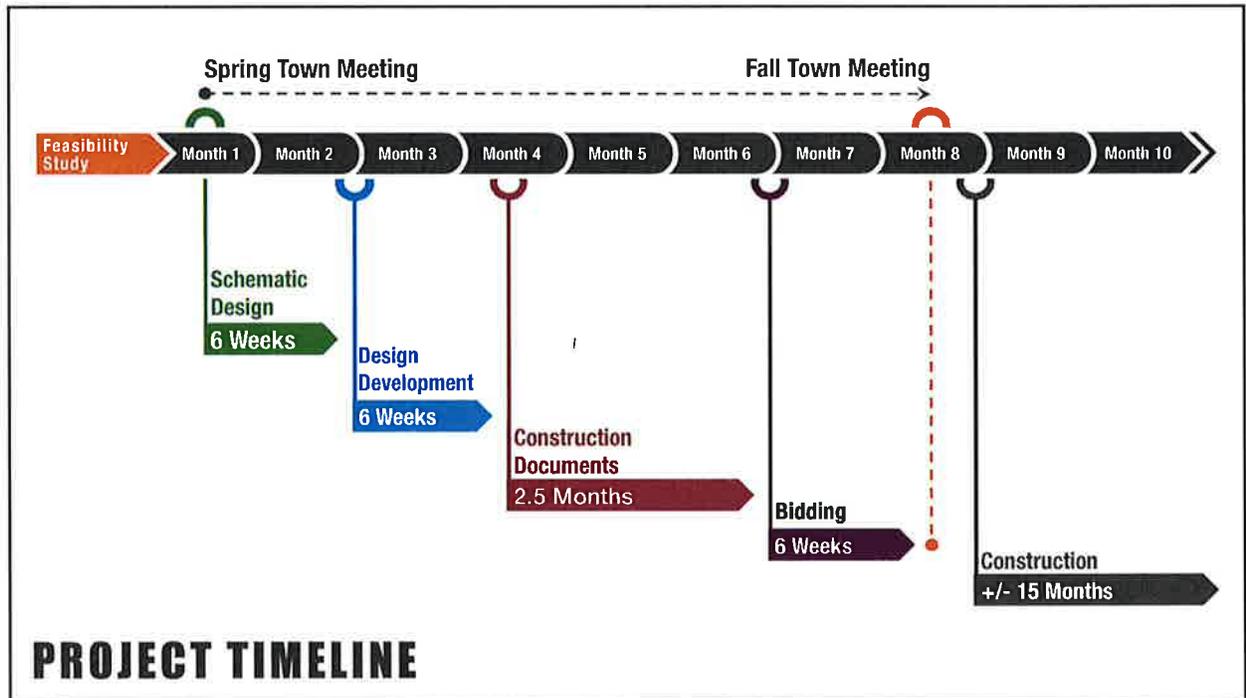
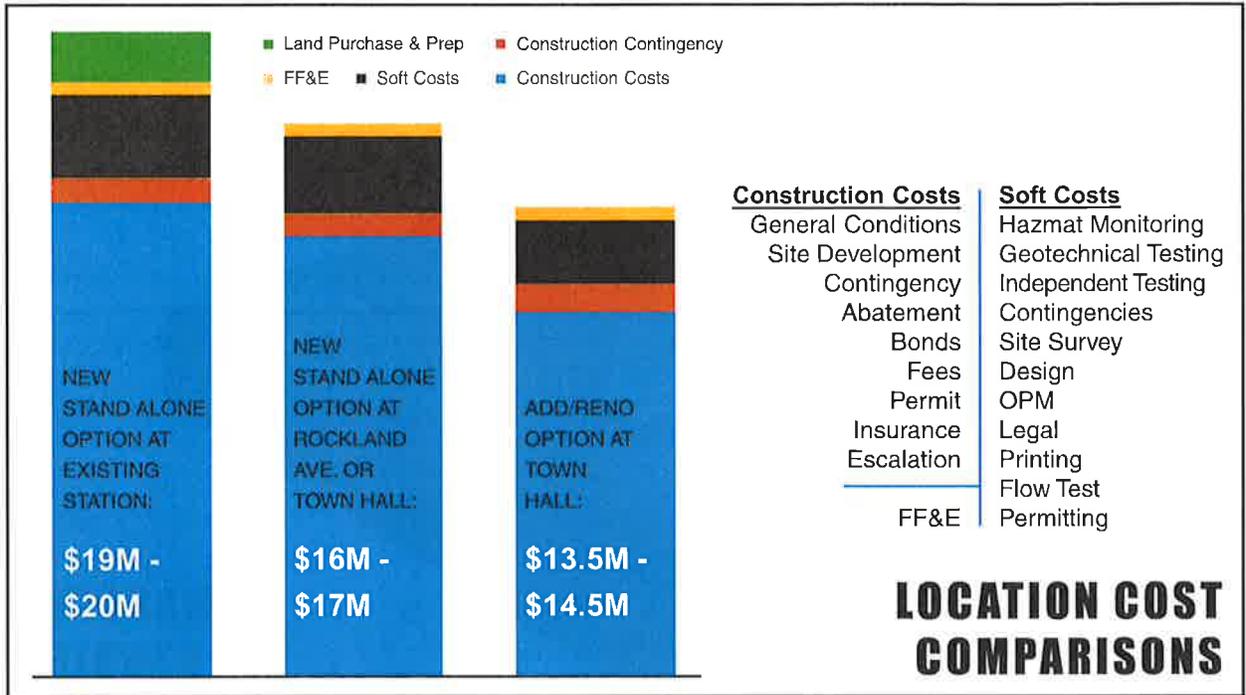
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THANK YOU!

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