

THE **GALANTE** ARCHITECTURE STUDIO

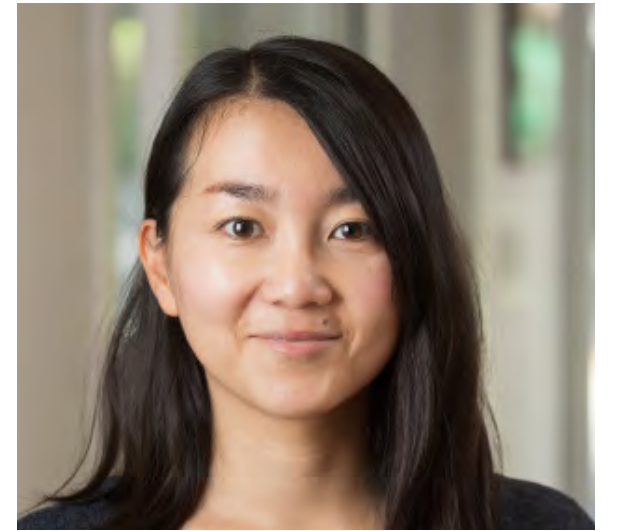
PUBLIC SAFETY SPECIALISTS



ARCHITECTURAL SERVICES **SALEM PUBLIC SAFETY**

The Galante Architecture Studio
146 Mount Auburn Street
Cambridge, MA 02138

P: (617) 576-2500
galantearchitecture.com



TGAS YOUR TEAM TGAS Staff





TOWN OF SALEM

|

TOWN OF SALEM TOWN ADMINISTRATION
TOWN OF SALEM PUBLIC SAFETY DEPARTMENT

|

THE **GALANTE** ARCHITECTURE STUDIO

Architecture	Lighting Design
Graphics/Wayfinding	Furniture Fixtures + Equipment
Site Planning	MAAB Accessibility
Permitting Process	Construction Administration

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CES CONSULTING, INC.

Mechanical Engineering (HVAC)
Electrical/Lighting
Plumbing Engineering
Fire Protection Engineering
Energy Evaluation

PROMISED LAND SURVEY

Property Boundary
Topography
Wetland Delineation

BT EMERSON ARCHITECT LLC

Specifications Consultant

TALEVI & HAESCHE, LLC.

Cost Estimating

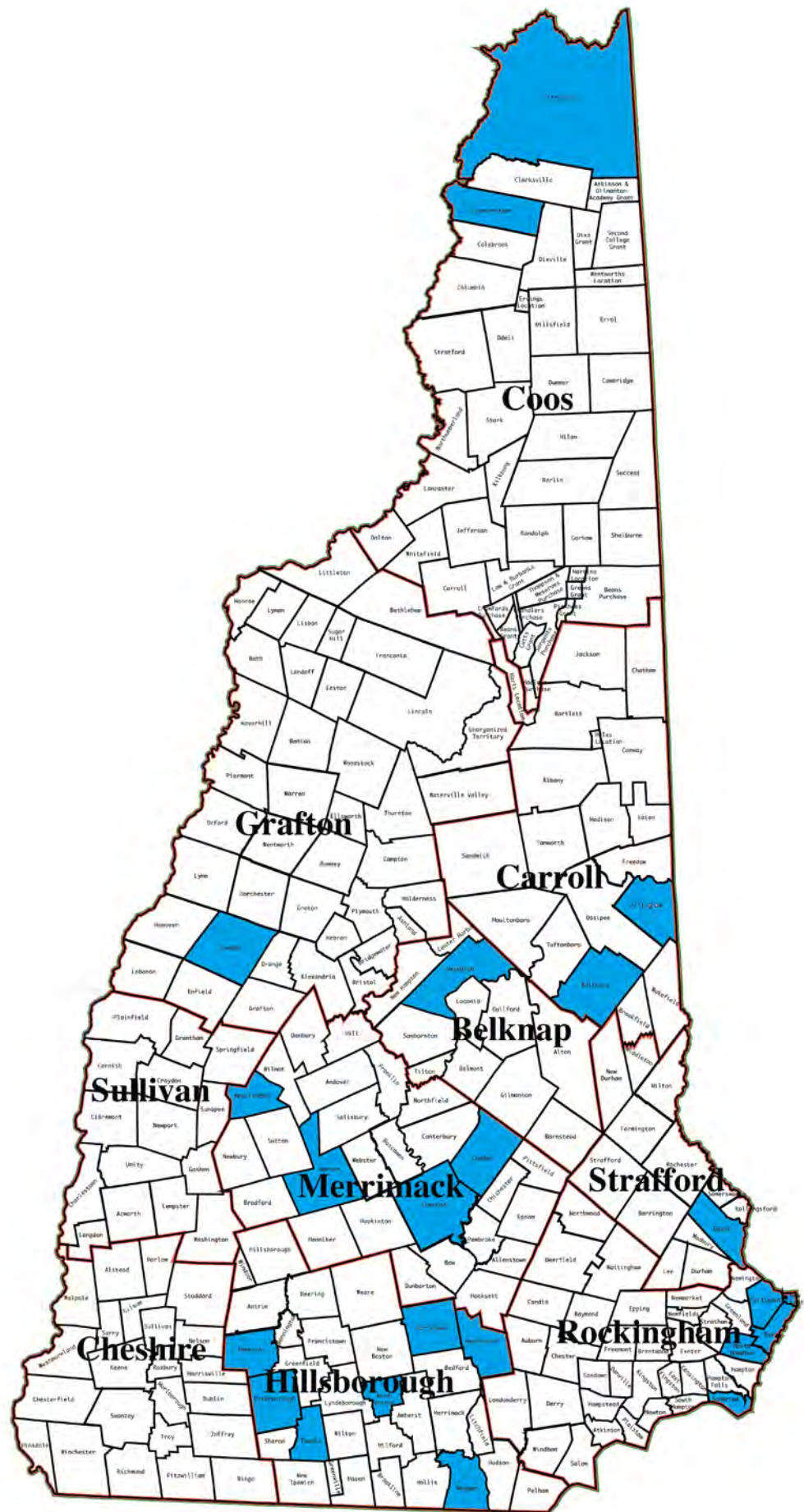
GALE ASSOCIATES

Civil/Site Engineering
Structural Engineering
Environmental Permitting
Building Enclosure Services



TGAS YOUR TEAM





TGAS
THE GALANTE ARCHITECTURE STUDIO

 **CES** Consulting Engineering Services
Mechanical, Electrical, Plumbing & Fire Protection

 **GALE**

TGAS TEAM HISTORY



About CES

Established in 1994

Team based engineering firm

Project office in Concord, NH

160 Employees (inclusive of CT, FL, NY, MA, MT, TX)

**Mechanical, Electrical, Plumbing,
Fire Protection, Technology, Commissioning,
+ Sustainable Design Services**



SPECIALISTS: **Public Safety Design**

TGAS



PUBLIC SAFETY EXPERTS

Northbridge Fire Department

New Construction

New Bedford Police, Fire, + EMS

Feasibility Study + New Construction

Harvard Police Department Training

Full Design Services

Boston Emergency Medical Services

Feasibility Study + Full Design Services

Davenport IA FD Headquarters

New Facility + Major Renovation

Belmont Police Station

Renovation + Expansion

Chelsea Engine Company 3

Historic Renovation

Harvard Police Training

New Construction

FDNY Engine Company 235

Historic Renovation

FDNY Engine Company 217

Historic Renovation

Orleans Fire Department

Feasibility Study & Report

Dennis Fire Department

Feasibility Study + New Construction

Barre Fire Department

Feasibility Study

FDNY EC 63

Major Gut Renovation + Expansion

Boston EC 51

Historic Restoration + Renovation

Cambridge Fire Department Headquarters

Major Gut Renovation

Boston Fire Headquarters

Major Gut Renovation

Brookline Fire Department Training

New Facility

Tewksbury Fire & Police Department e911

New Facility

Onset Fire Department

New Facility

TGAS



Public Safety Experience

Cambridge Fire Headquarters (LEED/NZE)

Charlton Public Safety Building

Dennis Fire Station

East Side Fire Station

Fairfield Police Headquarters

Hayden Fire Station

Ipswich Public Safety

Lexington Police & Fire Stations (LEED/NFF)

Monson Police Station

New Bedford Public Safety Building

New Britain Police Station

NM Regional 911 Center (Tewksbury)

North Attleboro Police (HVAC)

Northbridge Fire

North Brookfield Fire Station

North Haven Fire Station

Northampton Police Station (LEED)

Norwood Public Safety (HVAC only)

Onset Fire Station

Shrewsbury Police Station (LEED)

Sudbury Police Station

Sutton Police Station

Townsend Fire Sub-station

Westfield Police & Fire Station

Wilbraham Police Station

UMASS Amherst Police (LEED)



Belmont Police Department



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Belmont Police Department





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Belmont Police Department





New Bedford Public Safety



TGAS

New Bedford South Public Safety Center





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New Bedford South Public Safety Center





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New Bedford South Public Safety Center





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New Bedford South Public Safety Center



Davenport Fire Headquarters



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Davenport Fire Station Headquarters





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Davenport Fire Station Headquarters



Dennis Fire Station





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Dennis Fire Station



Ipswich Public Safety Facility

50' No Disturbance Buffer - Landscape Compensation Table

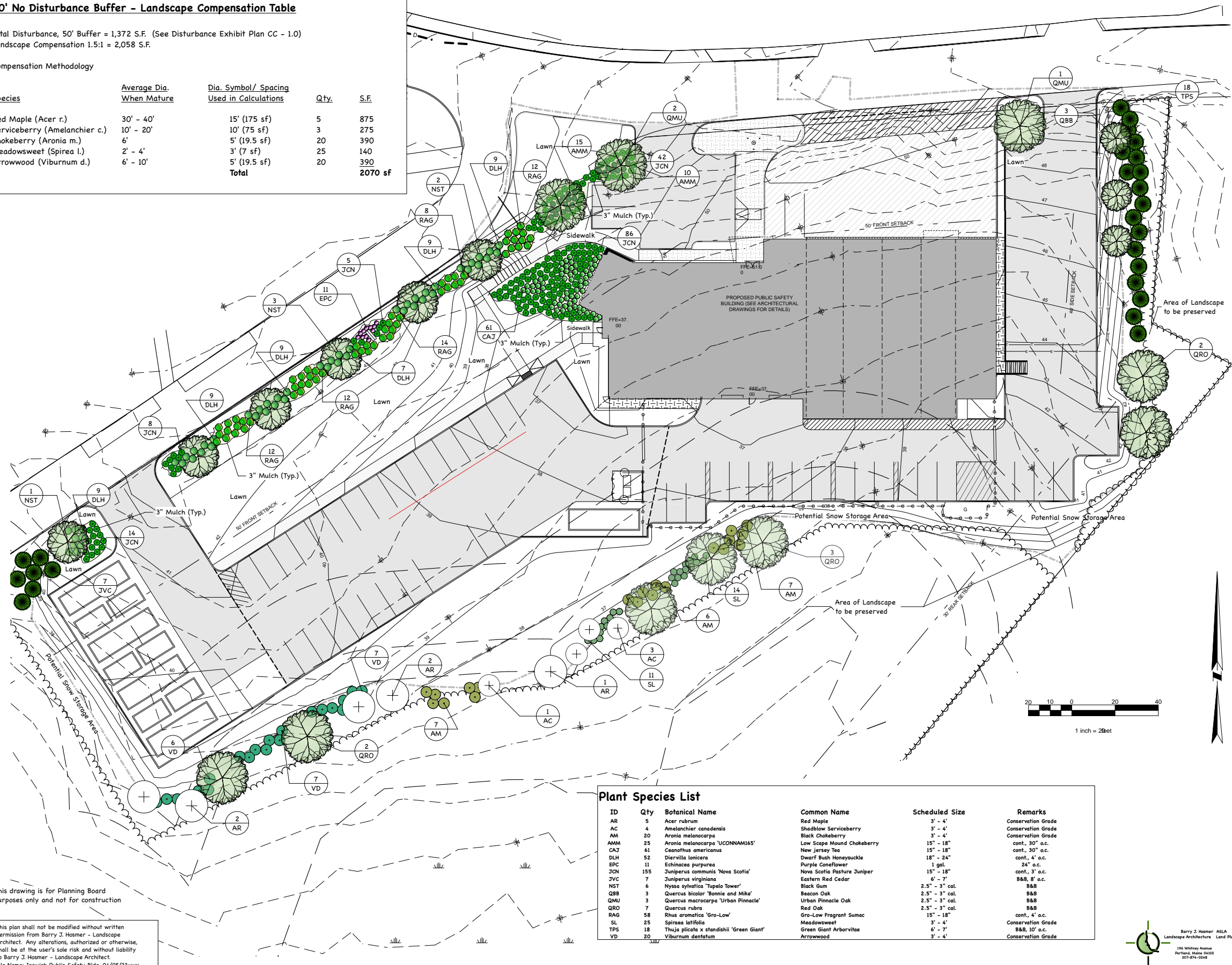
Total Disturbance, 50' Buffer = 1,372 S.F. (See Disturbance Exhibit Plan CC - 1.0)
Landscape Compensation 1.5:1 = 2,058 S.F.

Compensation Methodology

Species	Average Dia. When Mature	Dia. Symbol/ Spacing Used in Calculations	Qty.	S.F.
Red Maple (Acer r.)	30' - 40'	15' (175 sf)	5	875
Serviceberry (Amelanchier c.)	10' - 20'	10' (75 sf)	3	275
Chokeberry (Aronia m.)	6'	5' (19.5 sf)	20	390
Meadowsweet (Spiraea l.)	2' - 4'	3' (7 sf)	25	140
Arrowwood (Viburnum d.)	6' - 10'	5' (19.5 sf)	20	390
Total				2070 sf

This drawing is for Planning Board purposes only and not for construction

This plan shall not be modified without written permission from Barry J. Hosmer - Landscape Architect. Any alterations, authorized or otherwise, shall be at the user's sole risk and without liability to Barry J. Hosmer - Landscape Architect.
File Name: Ipswich Public Safety Bldg. 04/05/23.vwx



Plant Species List

ID	Qty	Botanical Name	Common Name	Scheduled Size	Remarks
AR	5	Acer rubrum	Red Maple	3' - 4'	Conservation Grade
AC	4	Amelanchier canadensis	Shadblow Serviceberry	3' - 4'	Conservation Grade
AM	20	Aronia melanocarpa	Black Chokeberry	3' - 4'	Conservation Grade
AMM	25	Aronia melanocarpa 'UCONNAMI15'	Low Scape Mound Chokeberry	15' - 18'	cont., 30" o.c.
CAJ	41	Ceanothus americanus	New Jersey Tea	15' - 18'	cont., 30" o.c.
DLH	52	Diervilla lonicera	Dwarf Bush Honeysuckle	18" - 24"	cont., 4' o.c.
EPC	11	Echinacea purpurea	Purple Coneflower	1 gal.	24" o.c.
JCN	155	Juniperus communis 'Nova Scotia'	Nova Scotia Pasture Juniper	15' - 18'	cont., 3' o.c.
JVC	7	Juniperus virginiana	Eastern Red Cedar	6' - 7'	B&B, 8' o.c.
NST	6	Nyssa sylvatica 'Tupelo Tower'	Black Gum	2.5" - 3" cal.	B&B
QBB	3	Quercus bicolor 'Bonnie and Mike'	Bacon Oak	2.5" - 3" cal.	B&B
QMU	3	Quercus macrocarpa 'Urban Pinnacle'	Urban Pinnacle Oak	2.5" - 3" cal.	B&B
QRO	7	Quercus rubra	Red Oak	2.5" - 3" cal.	B&B
RAG	58	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	15' - 18'	cont., 4' o.c.
SL	25	Spiraea latifolia	Meadowsweet	3' - 4'	Conservation Grade
TPS	18	Thuja plicata x standishii 'Green Giant'	Green Giant Arborvitae	6' - 7'	B&B, 10' o.c.
VD	20	Viburnum dentatum	Arrowwood	3' - 4'	Conservation Grade

TGAS

THE GALANTE
ARCHITECTURE
STUDIO INC

146 MT AUBURN ST CAMBRIDGE, MA 02138

617 576 2500

WWW.GALANTEARCHITECTURE.COM



Project
Number

Project Title
Ipswich Public Safety
Building

4 Pineswamp Rd,
Ipswich, MA 01938

samioles

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Civil Engineers - Land Surveyors
20 A Street
Framingham, MA 01701
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F 508.877.8349
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Drawing
Title
LANDSCAPE
PLAN

Date/Issued For
04.05.23

DESIGN DEVELOPMENT

Scale
1"=20'

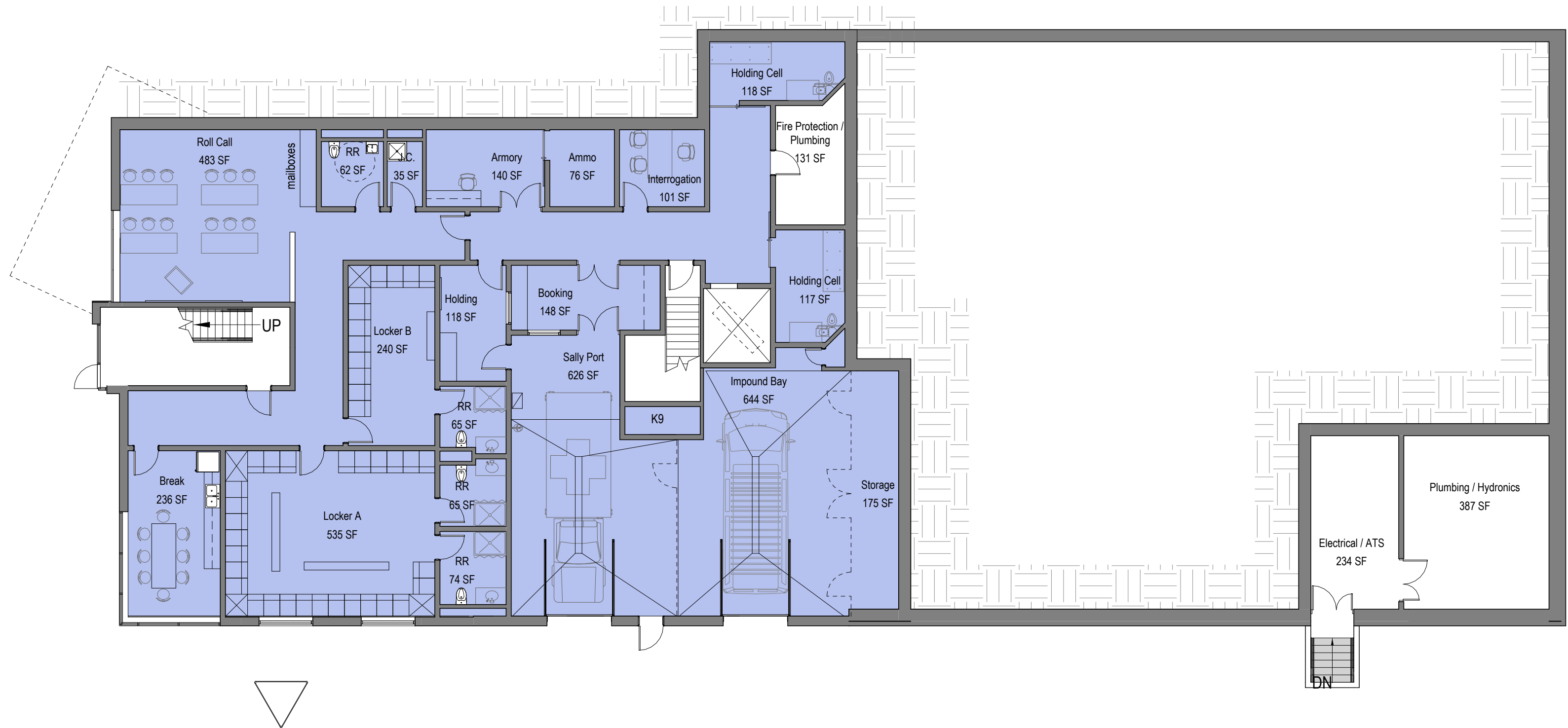
Drawn By
DJS

Drawing Number
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Ipswich Public Safety Facility

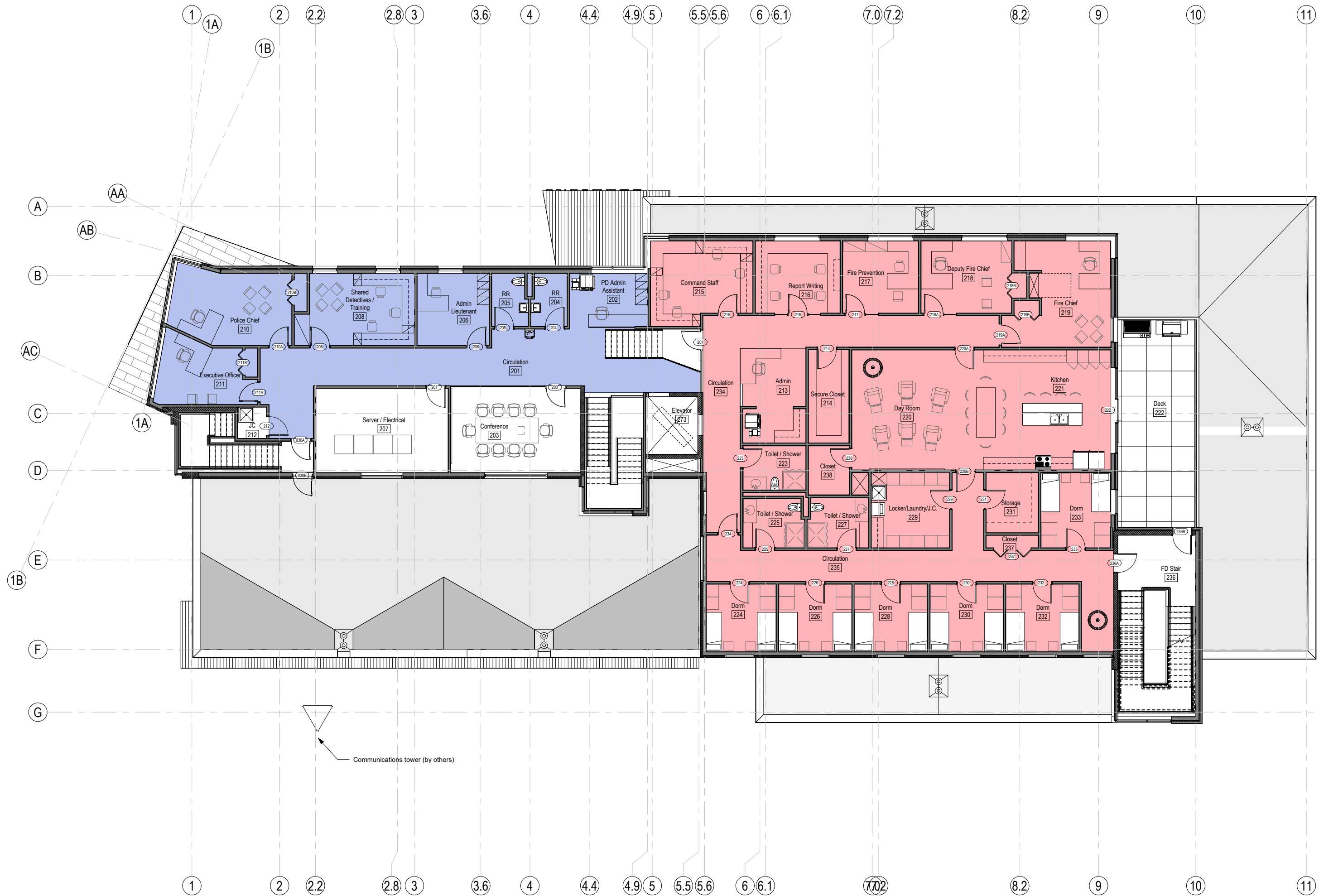




TOTAL 26,376 sf 2/22

6,361 sf  Ground Floor
1/16" = 1'-0"



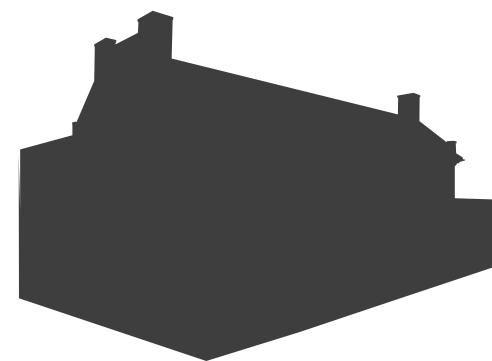




Boston EMS



Belmont Police Department



EST \$7,500,000
BID \$7,300,000

New Bedford Police + Fire



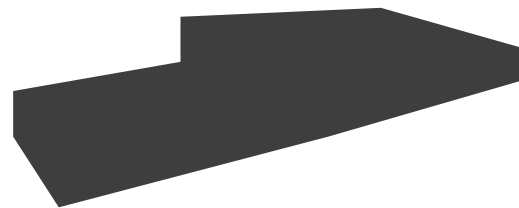
EST \$13,900,000
BID \$12,900,000

Brookline Maintenance + Training



EST \$4,500,000
BID \$4,300,000

Onset Fire Headquarters



EST \$6,100,000
BID \$5,700,000

Boston EMS



EST \$4,200,000
BID \$4,000,000

Davenport Fire Department HQ



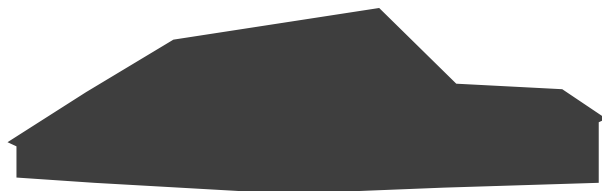
EST \$12,000,000
BID \$11,200,000

FDNY EC63



EST \$7,500,000
BID \$5,500,000

Dennis Fire Department



EST \$13,900,000
BID \$13,200,000

SPECIALISTS: **National Experts**

TGAS



FIRE STATION DESIGN

By Theodore Galante

RENOVATE OR REPLACE?

An experienced team can help you make the decision

The decision to renovate or replace an existing fire station leaves many things to be considered. Costs are often the biggest drivers in such a decision, but many other issues must be considered as well. Temporary quarters for equipment and personnel will weigh on the decision to renovate or replace a station. Sustainability is having greater influence on decision-making when it comes to our buildings, and some municipalities have set sustainable goals. In addition, local zoning ordinances define setbacks and building size—factors that could impact the decision. Historic preservation is also an issue, as a beloved station may only gain support if it is renovated and not replaced. Let's look at a few factors related to the decision to renovate or replace.

Historic preservation starts with the idea that the existing building is noteworthy enough to preserve for cultural reasons.

Photos Courtesy Theodore Galante AIA



FEATURED IN:

Governing Magazine
Fire Apparatus Magazine
FIREHOUSE Magazine
Quad-City Times



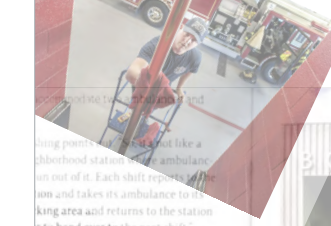
A16 Firehouse | Fire Station Design | August 2016

GOVERNING
The Image of a Firehouse Is Probably Wrong
demands on fire departments have grown in recent years, modern firehouses
to change with them.
VOCK | APRIL 10, 2017 AT 5:00 PM

FOLDING VEHICLE BAY DOORS
For decades, fire stations predominantly used the same sort of overhead roll-up doors that many people use in their homes. Galante says, the firefighters driving the engines often can't see high enough from out the windshield to know when the operators have pulled forward too early and ripped off the bottom part of the door. In fact, the problem is so common that the New York Fire Department keeps extra door panels in its firehouses.

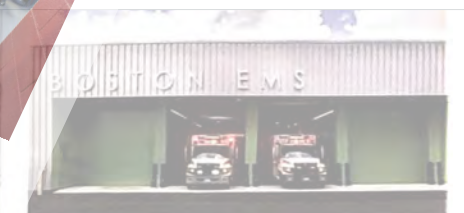
Most important, roll-up doors take longer to open than folding doors. The overhead doors cover the entire vehicle bay, but folding doors cover only half the bay and meet in the middle. That means they can open some several seconds faster. And in emergency response, several seconds mean the difference between life and death, John Sinclair, the IAFD president, says. Down-opening times in a new station in his department in Ellensburg, Wash., dropped from 20 seconds with roll-up doors to 3.5 seconds with folding doors. "When you're not breathing," Sinclair says, "that 16 seconds is kind of important to you."

Expense is an issue, however. Folding doors cost roughly twice as much as old-school overhead doors. That makes them a tempting target for budget-conscious city officials.



NECESSARY EXPANSION
The new EMS facility replaced a dilapidated garage located on the historic grounds of the old Boston Sanatorium. "I had been housed in an old four-maintenance building at the site of old state hospital, which had been sloped into different uses," Cushing says. "We needed to expand onto some viable land, and the city of Boston's vital improvement program gave us potential to do the expansion to an existing station." Cost of the facility was \$1.5 million.

Galante notes that Boston EMS needs a hardened facility because narcotics stored in the station make the site less than a near-parallel street, we had to do jumpies to prevent someone from jumping into the flat roof," he says. "We set building back from the street so that it didn't happen and designed a fundamentally windowless, hardened facility with only a couple of high slot windows to let in light." Galante also set prismat-fluse skylights on the station's roof to let natural light into the facility and security cages over the skylights. The station is a structural steel frame building with a three-foot-tall concrete around its perimeter to protect the structure from impact. The walls use a half stud infill with a plywood perimeter covered by standing seam aluminum. Galante says the building has 4 inches of insulation running from the grade to above the flat roof, which sets off built-up asphalt roll roofing has hot tar in between its layers to



Boston EMS runs both ALS and BLS ambulances. Cost of the new Boston EMS station was \$14 million. The Galante design of the Boston EMS station won the international German Design Award from the German Design Council. Shown is The Galante Architecture Studio principal Ted Galante in front of the award plaque.

make it durable and long lasting. "The interior of the station has abuse-resistant sheetrock coated with waterproof panels," Galante points out, "which can get wet and stay durable."

The Boston EMS Field Operations Division uses a two-tier response model offering basic life support (BLS) and advanced life support (ALS). It operates 27 front-line ambulances, including 22 BLS and five ALS units. Daily, the ambulances run to 335 emergencies and respond to more than 125,000 calls a year. BLS ambulances are staffed with two emergency medical technicians while ALS ambulances are staffed by two paramedics. Ambulance crews are supported by division supervisors, captains, and shift commanders.

The Boston EMS Special Operations Division facilitates medical coverage and coordination of assets, resources, and logistics during special events and emergencies, allowing Boston EMS to respond to large-scale emergencies without compromising its ability to answer 911 calls. Beyond traditional ambulance units,

the division uses a medical ambulance, utility vehicles and bicycles, specialty trailers, and mass casualty incident equipment. Its mass casualty bus, provided to the city by the Department of Homeland Security, is housed in the new EMS station.

Cushing points out that "the public likes the look of the new building. It's very functional for us, and we're glad that it is winning awards but also that it supports our operations so well and is very helpful to us as a department."

ALAN M. PETRILLO is a Tucson, Arizona-based journalist, the author of three novels and five nonfiction books, and a member of the Fire Apparatus & Emergency Equipment Editorial Advisory Board. He served 22 years with the Verdy (NY) Fire Department, including in the position of chief.

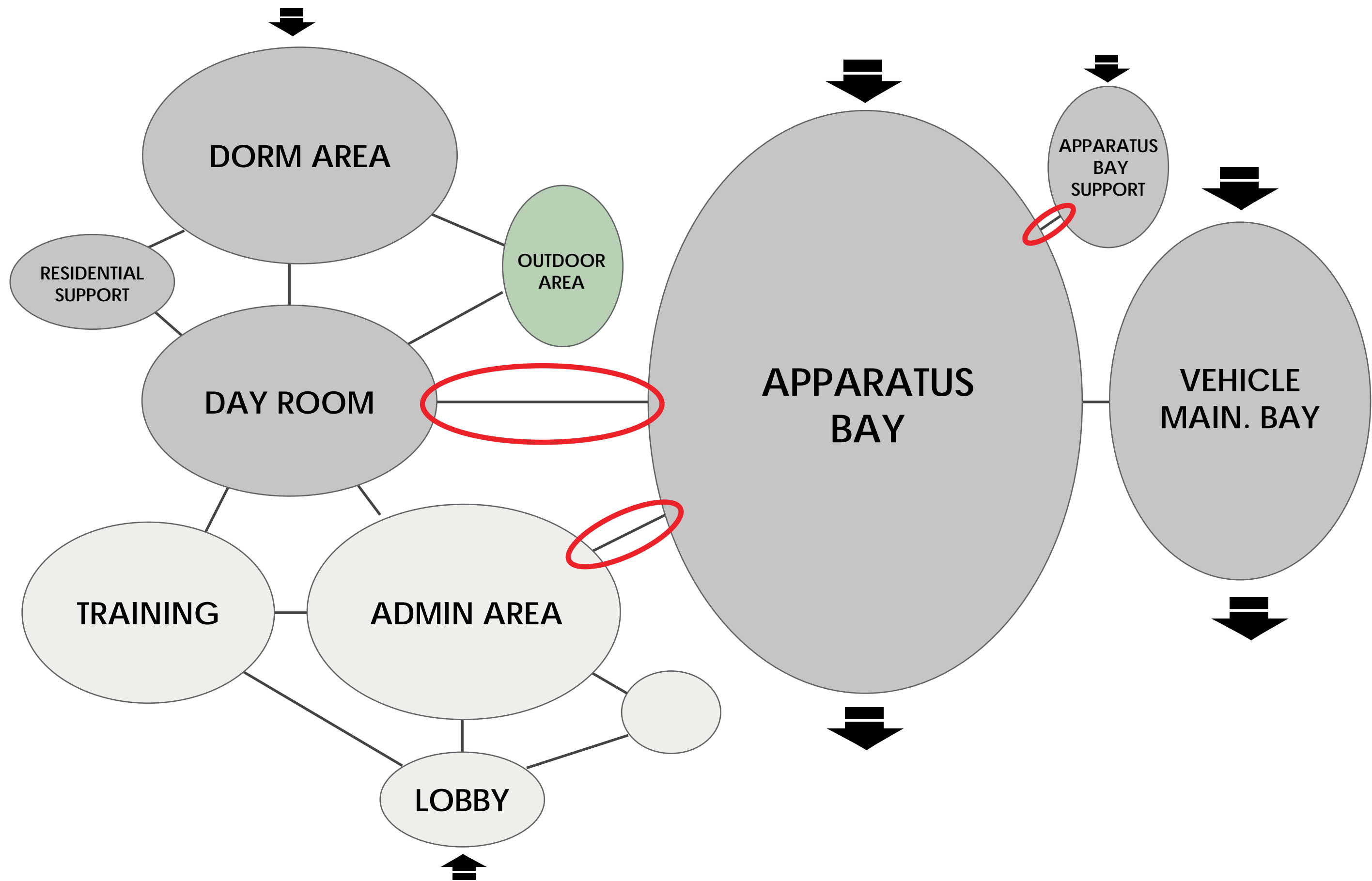


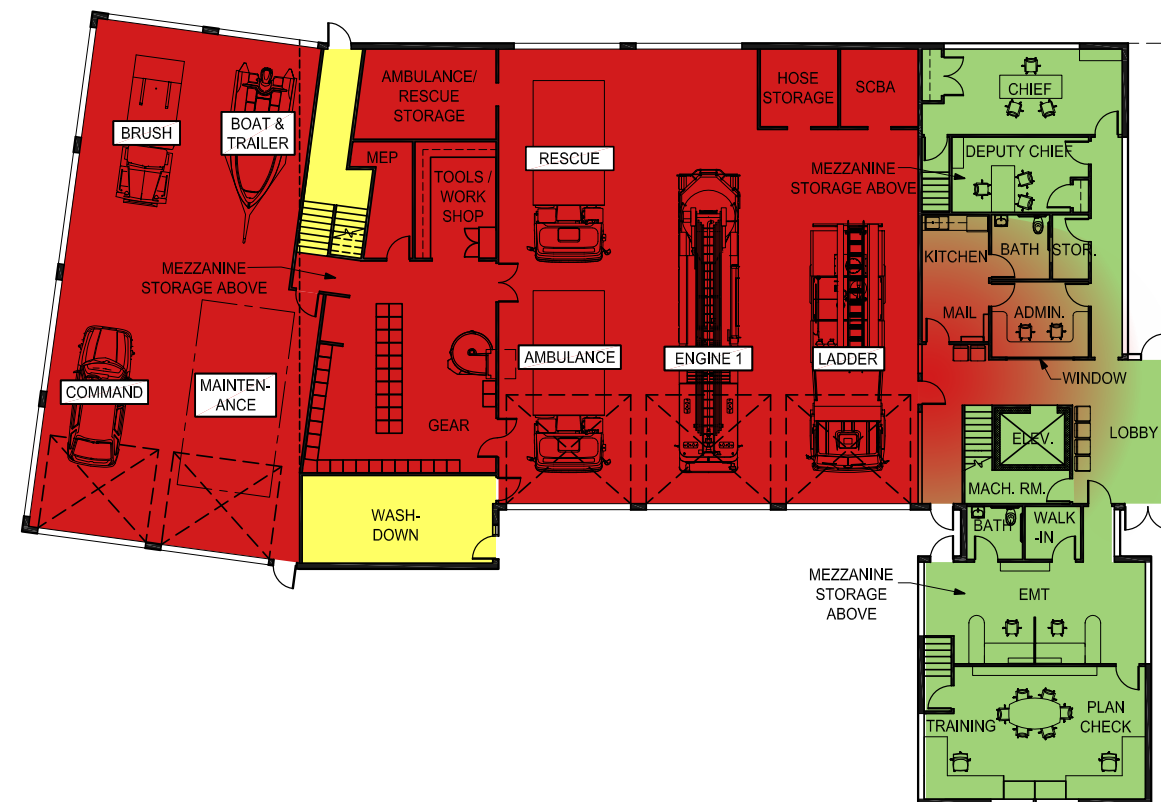
Healthy Buildings, Healthy Firefighters: Reducing Carcinogen Exposure at Fire Stations

Emily H. Sparer, ScD
Theodore Galante, AIA

Fire Chiefs Association of Massachusetts:
Professional Development Conference

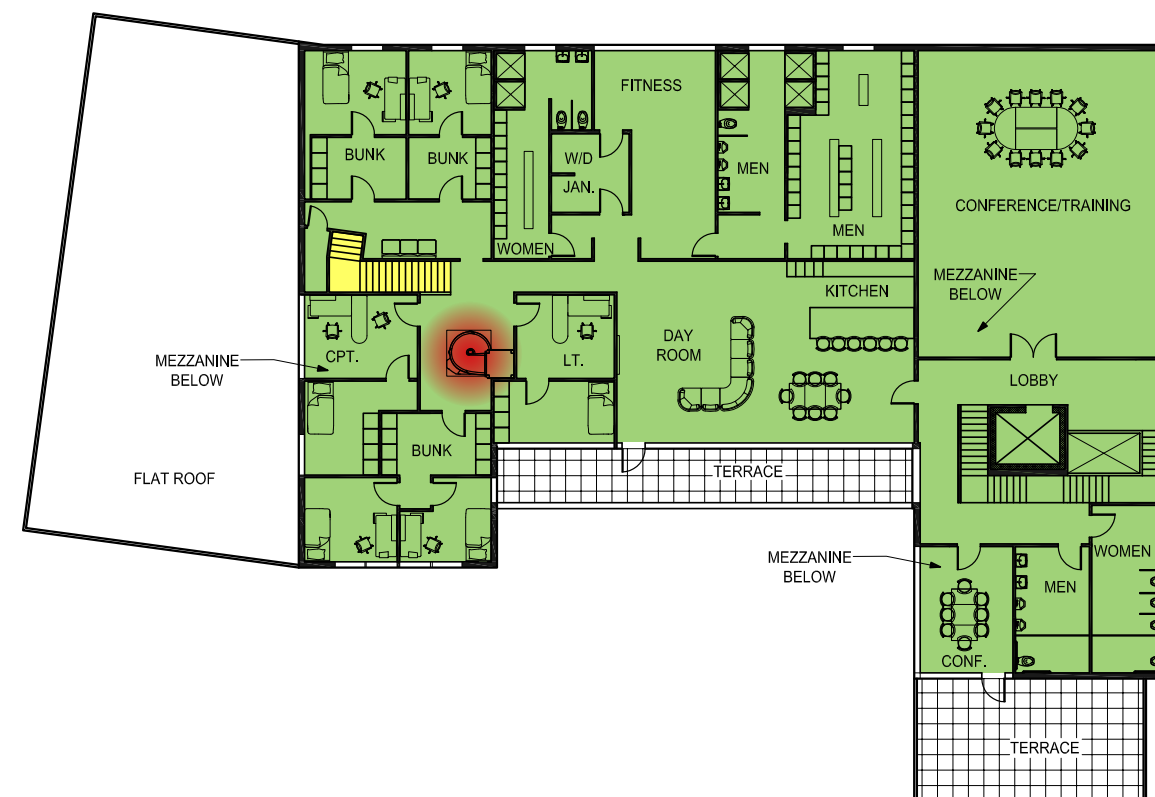
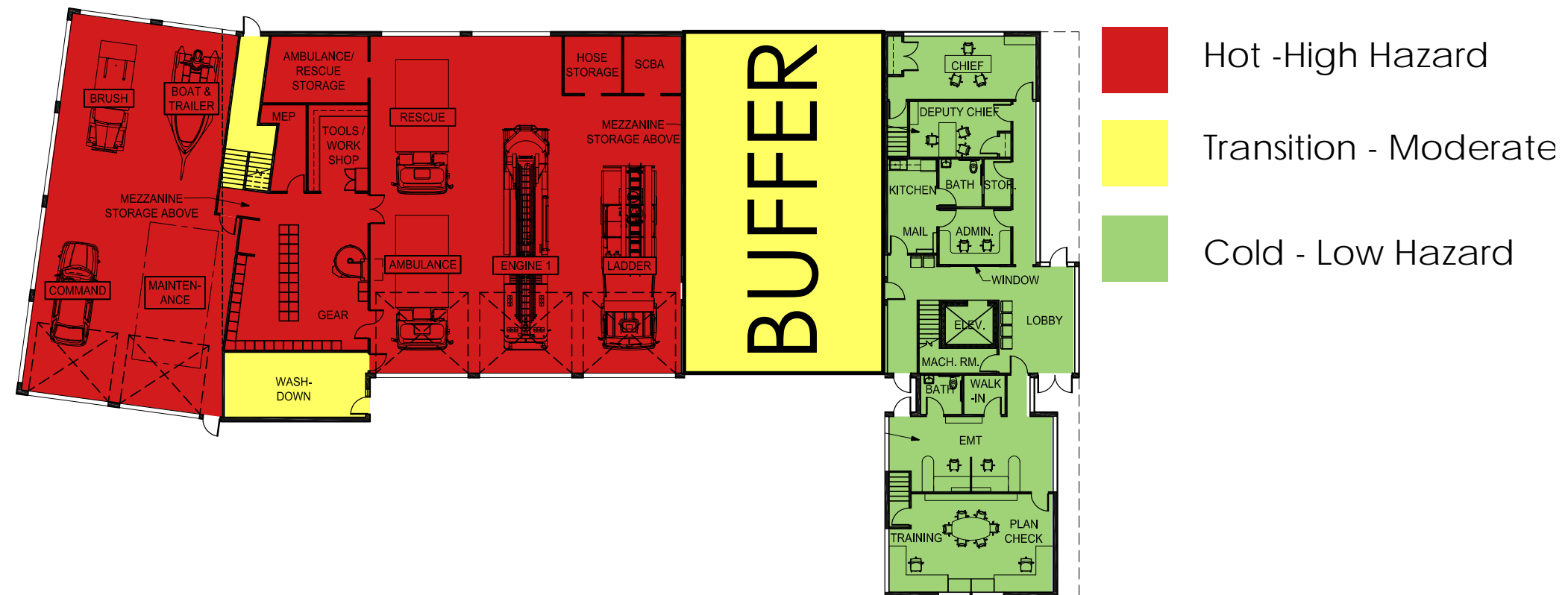






- Hot - High Hazard
- Transition - Moderate
- Cold - Low Hazard





SPECIALISTS:

Energy Efficient Design Approach

Sustainable Strategies



Geothermal



Passive House



Chilled Beams



Radiant Heat







49,000w

Roof mounted, tracker,
carport, ground mounted

Scope
Solar / EV Charging

Size
49,000 W

Completion
2020

Sustainable Details
Solar Photovoltaics
Solar Hot Water
(4) Level 2 Electrical
Vehicle Chargers

Practicing What We Preach

CES demonstrates our devotion to energy conservation measures and renewable energy choices with an array of solar energy panels at our Headquarters location in Middletown.

In 2009, CES successfully completed a new 14kW rooftop PV system with a dual axis solar tracker. The tracker and rooftop system consists of 76 solar panels that are generating approximately 16,000 kwhr of power a year. One of the rooftop panels is dedicated to a solar hot water system with drain back tank. This system makes enough hot water to support 50% - 75% of the building's needs. CES was able to complete this project through the help of grants received from the Connecticut Clean Energy Fund.

In 2013, two arrays totalling 35kW were added in the parking lot and south facade of the Middletown office. And lastly, in 2020 CES added 250W of solar in the form of a canopy atop an outdoor patio.

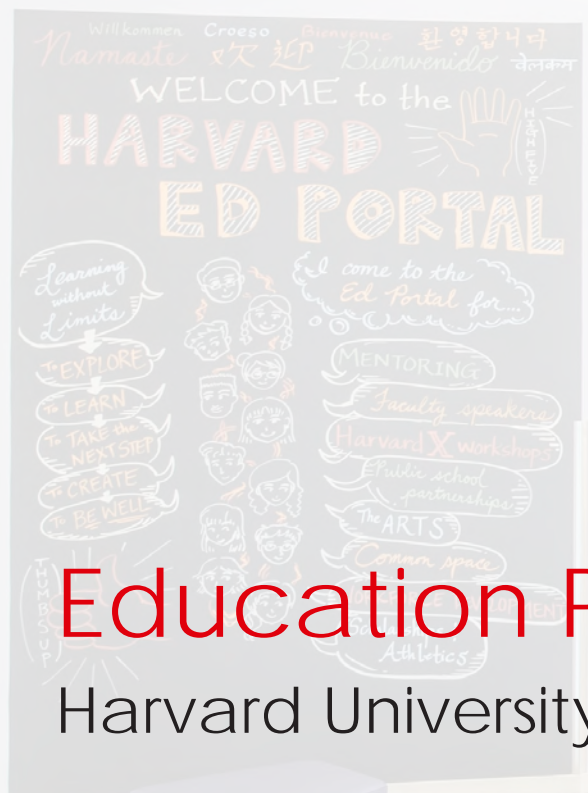




Central Fire Station

City of Davenport, IA





Education Portal

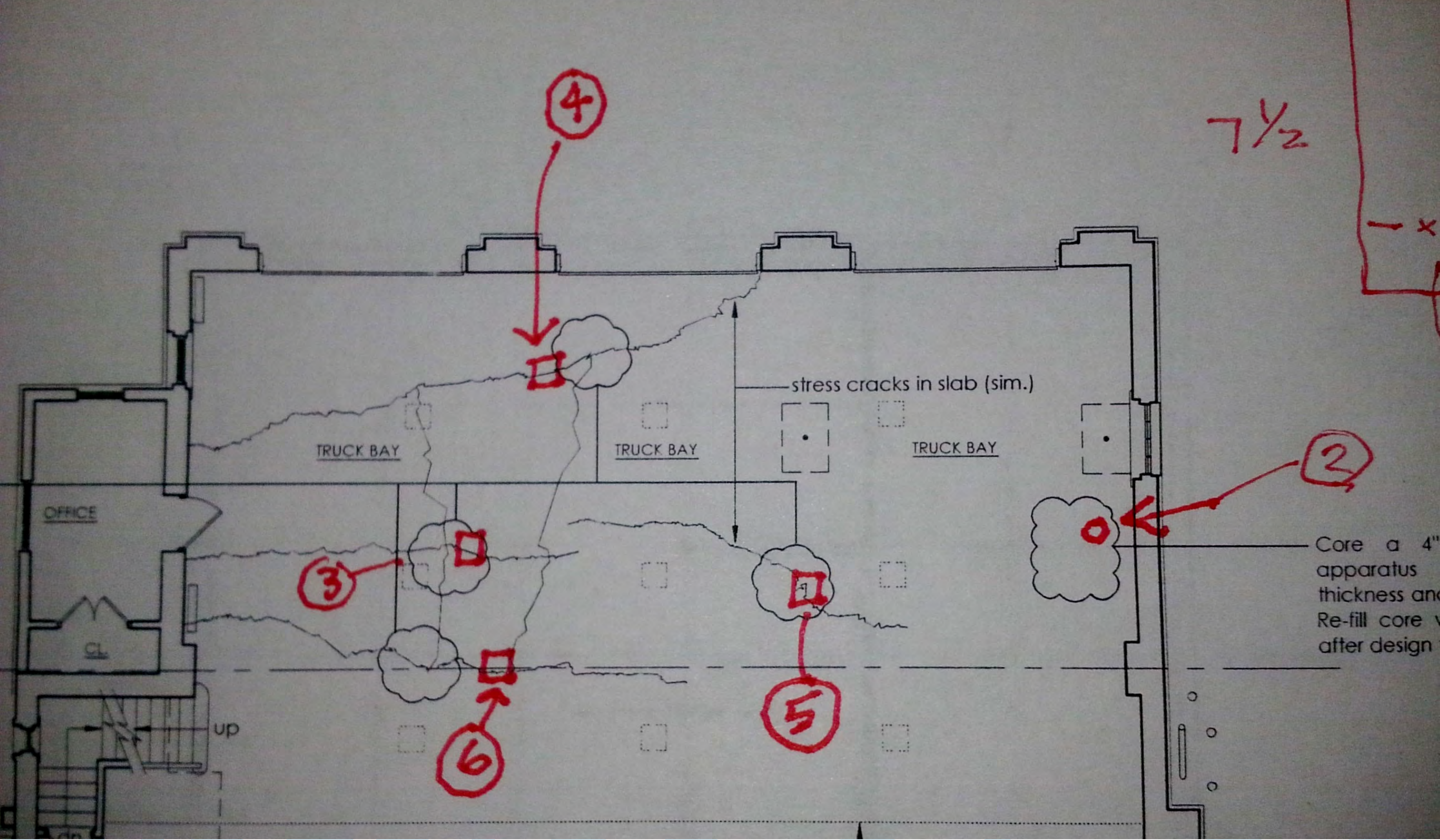
Harvard University



Quality Assurance + Quality Control

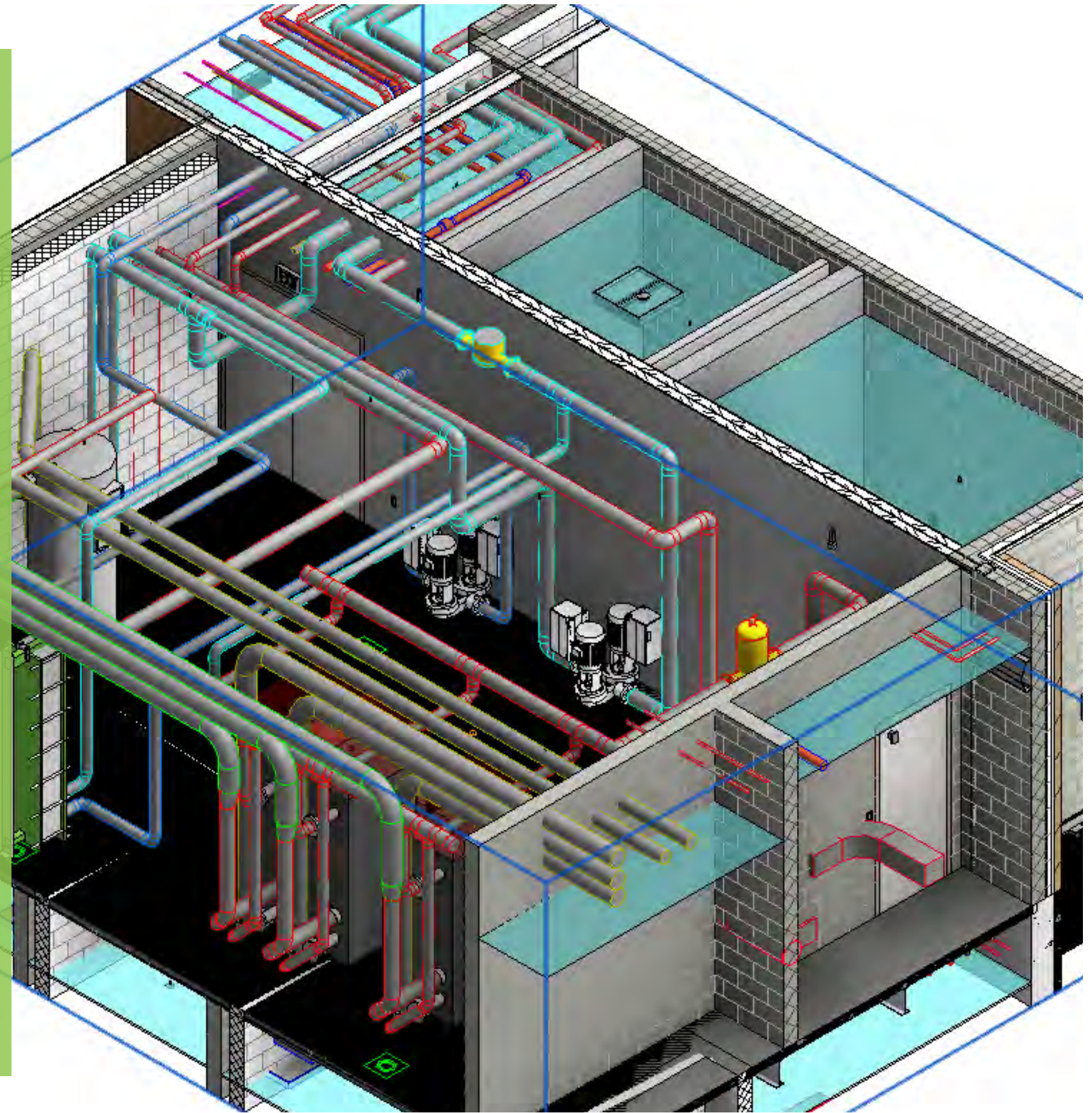


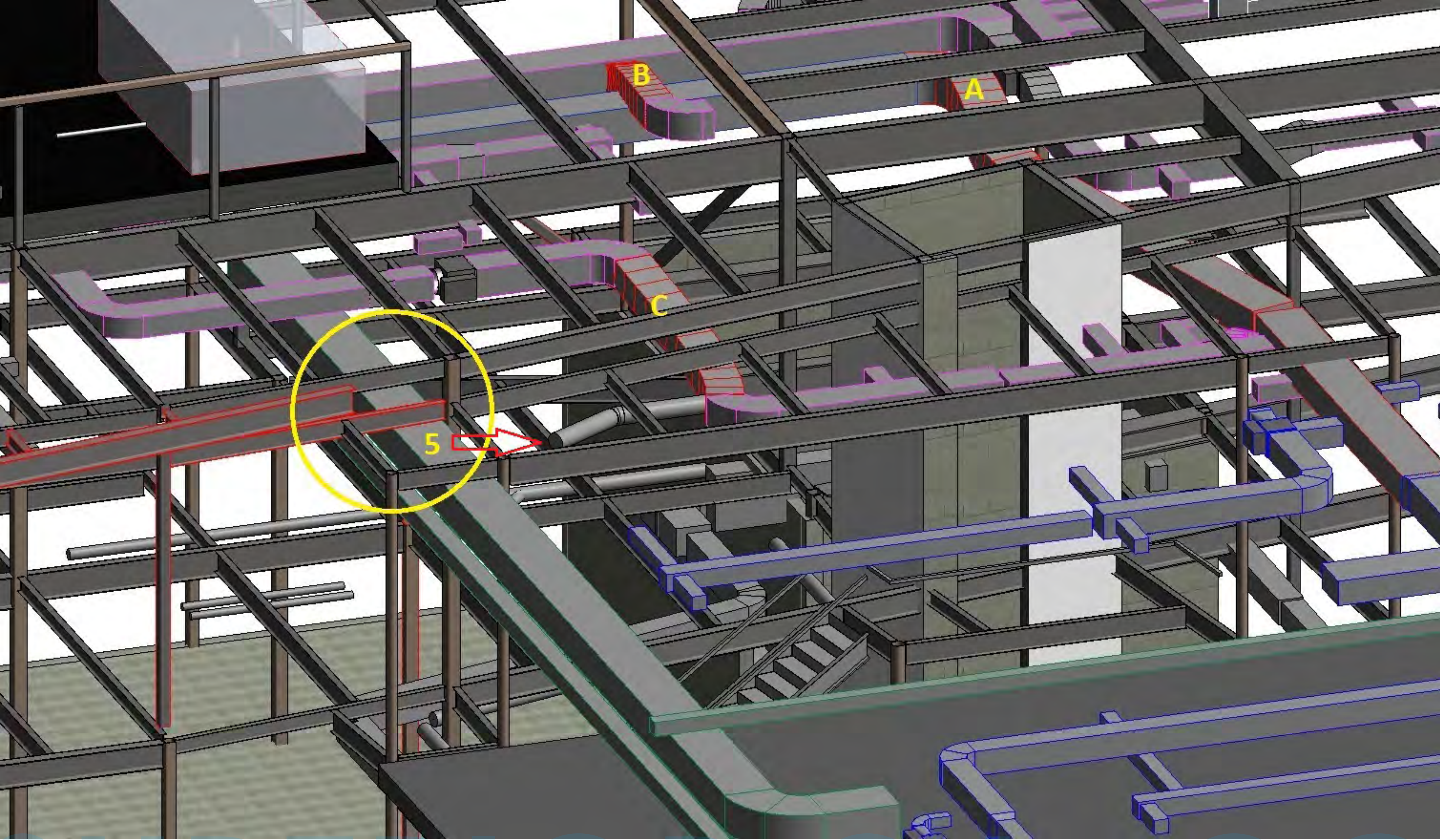




Coordination + Communication

BUILDING INFORMATION MODELING





TGAS

+

