

BUILDING USE AUDIT - CONDITION ASSESSMENT

Town of Hadley, Massachusetts

Highway Division - DPW

230 Middle Street

Year Constructed: 1970

Construction Type: IIB

Fire Sprinklers: No

Approximate Building Area per Floor:

Containers: 1,669

First Floor: 7,714

Mezzanine: 533

Total Area: 9,916



Documents used in study:

New Highway Garage Feasibility Study, by Dufresne-Henry Engineers dated August 2006

General:

The Highway Garage building shares the site with a number of other structures; Salt Shed, Pole Barn, storage containers, fuel station, and the Town's Water Treatment Facility. In addition to the structures, land is also used for stockpiles of materials and miscellaneous equipment.

The land occupied by the Water Treatment Facility is relatively tight requiring vehicles to be stored on the Highway Garage parcel.

For the purposes of this study the portable buildings have not been included. These are intended as temporary structures and are not securely anchored to the ground. In addition they are not handicapped accessible.

OSHA is mentioned in this report, however, we did not perform an detailed OSHA compliance inspection, and are not qualified to perform such an inspection.

CONDITION ASSESSMENT

Life Safety

2

Stairs to the mezzanine do not meet OSHA requirements.

4

New Fire Sprinkler System.



Universal Accessibility

3

Shower/toilet room is not handicapped accessible. Replace fixtures including shower and re-organize space to comply with the MAAB adding grab bars where required.

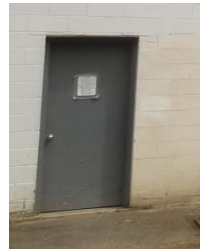
3

Kitchen is not accessible. Add counters and accessible sink. Relocate microwave so it is useable.



3

Doors are equipped with knobsets and need to be replaced with lever hardware.



Exterior

3

Exterior of building needs to be re-painted. Vertical wood siding at gable ends should be scraped and sanded prior to painting.

3

Remove existing wood gates and canvas remnants from pole barn. Remove salt pile (see next item). Frame around the eight south facing poles and install seven new overhead doors. Area above doors should be framed in wood and covered with plastic glazing to allow for solar heat gain.



3

Power wash the siding on the pole barn and re-stain exterior.



3

Relocate salt pile to a different location on site. Preferably a new wood shed should be constructed approximately 14 feet x 20 feet with a clear 14 feet clear interior height.

3

The condition of the exterior CMU wall construction is generally satisfactory; however, a step crack was observed at the west end of the overhead door opening in the south exterior wall of the larger garage bay. This may be to rust jacking of the steel lintel, and/or from minor settlement at the door jamb. While this condition presents no immediate concern, further review and repair is recommended.



Interior

- 3

 Paint all existing interior surfaces that are currently painted, including floors.
- 3

 Add lighting and power to the pole barn.
- 4

 Add an HVAC system to the repair shop.
- 3

 An extra vehicle lift is required for larger vehicles.



Energy & Water Conservation

- 3

 Windows are single glazed and need to be replaced or storm panels added in all heated areas.
- 3

 Exterior walls are not insulated. In all heated spaces the walls should be framed out on the interior, insulated and a vapor barrier installed. Finishes should be painted sheetrock in light use areas and painted fiber reinforced, water resistant sheetrock in bay areas. Insulation should be R=18.
- 3

 Although not visible, it is assumed that the attic space is also un-insulated. Install blown-in insulation over the bottom chords to provide an R=30 value.



Structural

- Due to the long span of these trusses, FBRA recommends that the continuous, 2x strongback bracing for individual truss members be inspected and be securely anchored to the gable end walls if not correctly done during the original construction.

Mechanical

- 4

 Replace the non-programmable thermostats with programmable thermostats.

3

Replace the electric baseboard heaters in the main building and the trailer attached to the main building. Alternatively, replace them with hot water baseboard heaters connected to the main building heating system.

Electrical

3

The main panel should be replaced with a new panel, and a secondary subpanel with all new circuits run (including dedicated power feeds for chop saws and large load tools). Additionally, the service should be upgraded to 400 amps and the office trailers should be connected to the new service. Connecting the trailers to the main service will remove the need for two services and will allow back-up power to certain loads without using extensions cords as is done currently.

3

The lighting and low voltage systems in this building should be replaced. Many years of piecemeal fixes has left the systems in disarray.

3

The fire alarm system should be replaced with a system that is compatible with the fire alarm system at the Public Safety building.

Plumbing

3

Provide self-regulating electric heat tape on the water piping exposed outside of the building.



If either trailer is required to be accessible, the existing fixtures should be replaced with accessible fixtures. For the trailer to the South, if the water closet is not replaced with an accessible fixture, it should be replaced with a low flow fixture.

3

Replace the water closet in the main building with an accessible fixture. Provide an accessible lavatory for that restroom. Replace the shower valve with a pressure balanced valve. If accessibility is required, replace the shower and the shower valve with accessible components.

PROGRAM INFORMATION

Maintenance of vehicles include not only those of the Public Works but also school buses, police vehicles, and other town vehicles.

Office space is lacking in the Highway Garage and has been supplemented by three portable trailers, with the smaller unit directly connected to the building. Even so, the town mechanics office is grossly undersized.

The current arrangement of the equipment bays includes a north - south aisle with parking bays off to the side. This is a difficult arrangement as there is limited space to maneuver the larger vehicles into their bays in an efficient manner. A far better arrangement would be to have doors at the front and back of the bays to allow for a drive through arrangement. The town has a tremendous investment in vehicles and equipment (e.g. snow plows) that it is preferable to garage as many as possible. The pole barn could be better utilized for non-mechanised equipment if the walls were fully enclosed.

The maintenance area has insufficient space to permit working on multiple vehicles at a time. School buses are too long to fit within the maintenance bays without the doors being open. The maintenance bays should also be equipped with an HVAC.

The current building also lacks a wash bay that is critical to maintaining the condition of vehicles. This will require a recycling/filtration system for the water, and separators for the collection of sand. In addition a portion of a bay should be designated as a spray booth with the remainder of the bay used for the storage of water treatment's supplies and equipment.

The current break room is significantly undersized and needs to be enlarged, not only to serve this function, but to allow for group training for 20 staff.

Three options for expansion of the facilities are as follows:

Option #1. A new building to replace the existing garage and DPW offices. This would be the ideal arrangement allowing for drive through bays meeting the overall needs for storage and maintenance. Space on the site is very limited and to construct this building demolition of the existing garage and the fuel pumps will be necessary. The fuel pumps will need to be reconstructed. To supplement the building we recommend that the pole barn be enclosed to provide storage space for smaller equipment.

A new driveway will need to be constructed around the salt barn to gain access to the rear of the proposed building. We also recommend that the fence line between Water

Treatment and the Garage be relocated into a straight line to maximize maneuvering space.

Option #2. Retain existing garage but remove all office spaces so that the entire building can be used for vehicle storage. A new building would be constructed to replace the pole barn allowing drive through bays and serve as the vehicle maintenance facility. It will also include Highway Department support spaces. A separate building would be constructed to house the DPW offices.

A new driveway will need to be constructed around the salt barn to gain access to the rear of the proposed building. New paving will also be constructed to the north side of the new building and connect back to the current paved areas around the current garage.

Option #3. The new maintenance garage building, described in option 2, would be constructed on a new site, preferably towards the north end of the town. As the town has no buildable land proposals for property will be required and will add to the cost of the project.

The new DPW office building would be constructed on the current highway garage site.

LIST OF DRAWINGS SHOWING EXISTING AND PROPOSED PLANS:

EXH-1 Existing Floor Plans

1PRH-1 Option 1 Proposed Site Plan

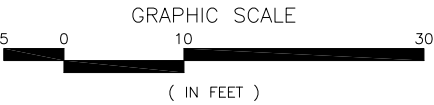
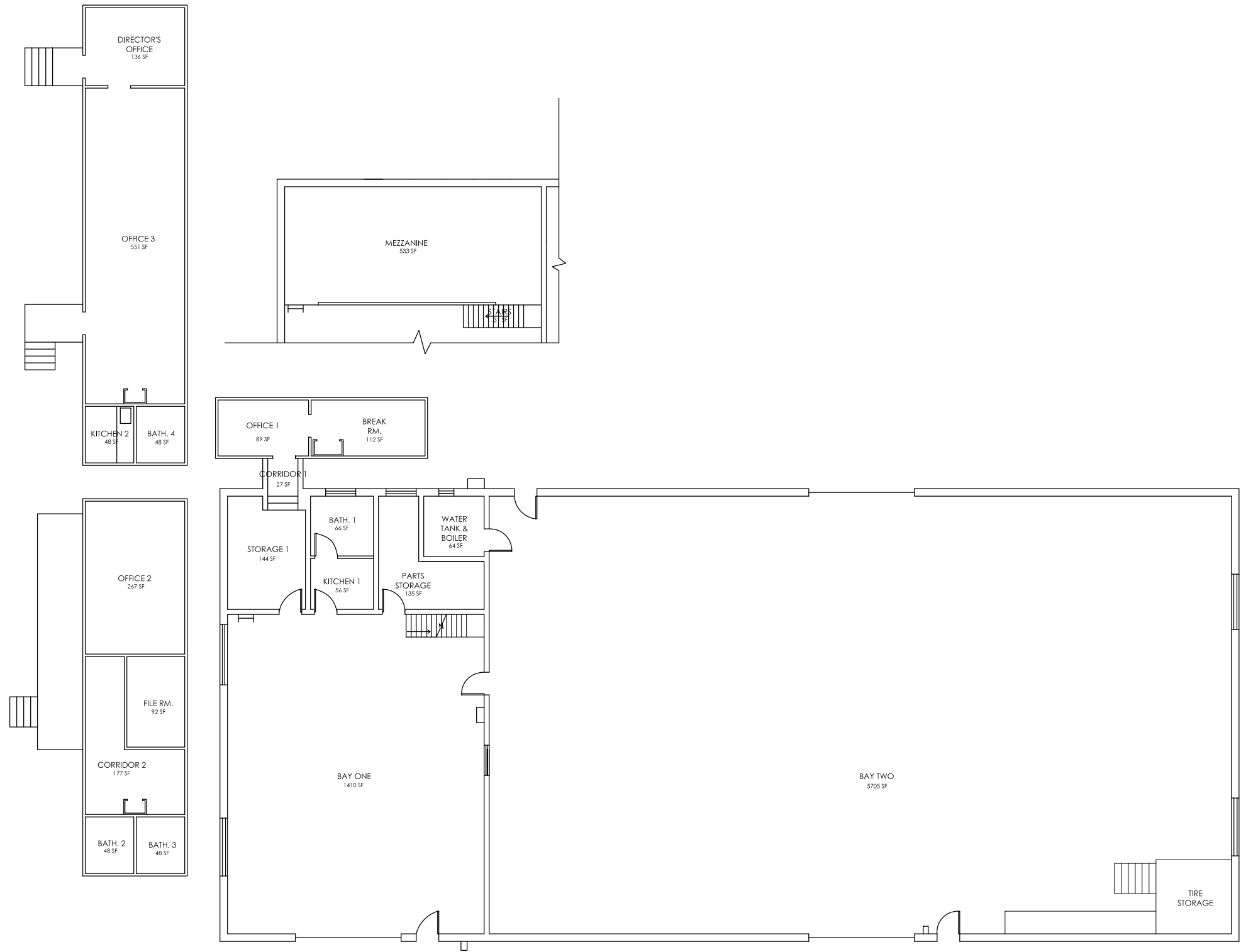
1PRH-2 Option 1 Proposed Floor Plan

2PRH-1 Option 2 Proposed Site Plan

2PRH-2 Option 2 Proposed New Garage

2PRH-3 Option 2 Proposed New Office Building & Existing Renovations

EXISTING FLOOR PLAN



Drummey Rosane Anderson, Inc.
225 Oakland Road, Studio 205
South Windsor, Ct 06074

Planning	860-644-8300
Architecture	860-644-8301 fax
Interior Design	info@draws.com

Town Of Hadley
Municipal Facilities Study and Planning
Hadley, Massachusetts

**HIGHWAY DEPARTMENT
EXISTING FLOOR PLANS**

Scale: 1/16"=1'-0"
Drawn by: MC
Job No. 13006.00
Date: 9/6/13

EXH-1



D·R·A

Drummey Rosane Anderson, Inc.

225 Oakland Road, Studio 205

South Windsor, Ct 06074

Planning

Architecture

Interior Design

860-644-8300

860-644-8301 fax

info@draws.com

Town Of Hadley

Municipal Facilities Study and Planning

Hadley, Massachusetts

PUBLIC WORKS GARAGE - PROPOSED SITE PLAN

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

Drawn by: MC

Job No. 13006.00

Date: 9-6-13

1PRH-1

Page 9 of 37



D·R·A

Drummey Rosane Anderson, Inc.

225 Oakland Road, Studio 205

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Planning

Architecture

Interior Design

860-644-8300

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Town Of Hadley

Municipal Facilities Study and Planning

Hadley, Massachusetts

PUBLIC WORKS GARAGE

PROPOSED FIRST FLOOR PLAN

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

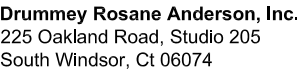
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Job No. 13006.00

Date: 9-6-13

1PRH-2

Page 11 of 37



Planning 860-644-8300
 Architecture 860-644-8301 fax
 Interior Design info@draws.com

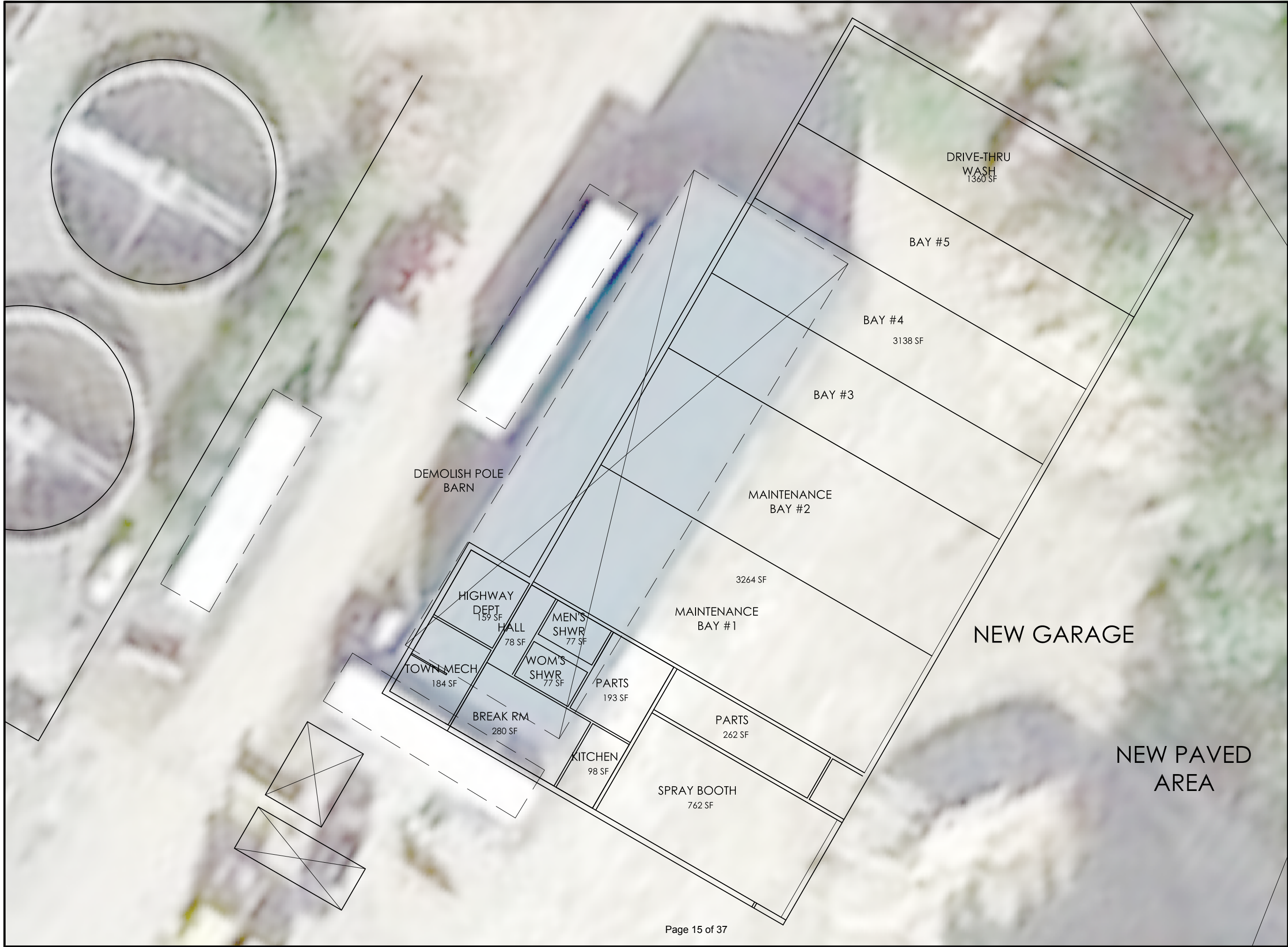
Town Of Hadley
Municipal Facilities Study and Planning
Hadley, Massachusetts

PUBLIC WORKS GARAGE
OPTION #2 SITE PLAN

Scale: 1/32"=1'-0"
 Drawn by: KB
 Job No. 13006.00
 Date: 9-6-13

2PRH-1





D·R·A

Drummey Rosane Anderson, Inc.

225 Oakland Road, Studio 205

South Windsor, Ct 06074

Planning

Architecture

Interior Design

860-644-8300

860-644-8301 fax

info@draws.com

Town Of Hadley

Municipal Facilities Study and Planning

Hadley, Massachusetts

PUBLIC WORKS GARAGE

OPTION #2 NEW GARAGE

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

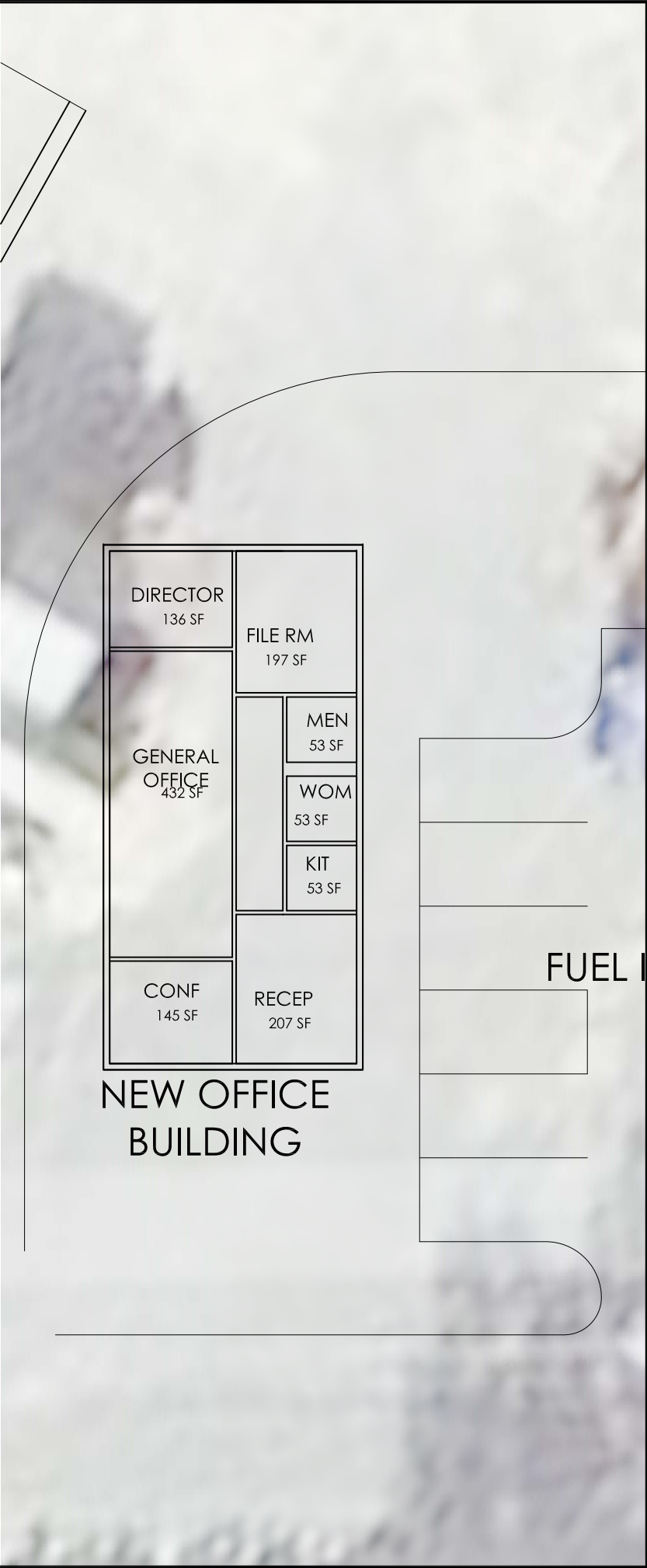
Drawn by: KB

Job No. 13006.00

Date: 9-6-13

2PRH-2

Page 15 of 37



D·R·A

Drummey Rosane Anderson, Inc.

225 Oakland Road, Studio 205

South Windsor, Ct 06074

Planning

Architecture

Interior Design

860-644-8300

860-644-8301 fax

info@draws.com

Town Of Hadley

Municipal Facilities Study and Planning

Hadley, Massachusetts

PUBLIC WORKS GARAGE

OPTION #2 NEW OFFICE BLDG & EXISTING RENOVATIONS

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

Drawn by: KB

Job No. 13006.00

Date: 9-6-13

2PRH-3

MUNICIPAL FACILITIES STUDY and PLANNING

Town of Hadley, Massachusetts

Town Garage

Structural

Introduction:

Foley Buhl Roberts & Associates, Inc. (FBRA) is collaborating with Drummey Rosane Anderson, Inc. (DRA) in the study of existing conditions and planning options for the Town Garage, located at 230 Middle Street in Hadley. The one-story (plus mezzanine), sloped roof, 8,100 square feet facility was constructed in 1971, and is occupied by the Department of Public Works. There is no basement.



A single garage bay (approximately 1410 square feet in area) is located at the front (west) section of the building. To the north of this bay there is a kitchen, a bathroom and storage rooms. The mezzanine (approximately 533 square feet) is located above this area. A steel framed crane rail has also been installed in this garage bay. An open garage area, approximately 5,705 square feet in area, is located to the east. Entrance to this section is through overhead doors on the north and south exterior walls (one each wall). Portable office units along the west and north sides (three total) house additional office space, bathrooms and a break room.

The site is relatively level; the floor level matches the exterior finished grade. Additional structures on the site include a wastewater treatment plant.

The August 2006 *New Highway Garage Feasibility Study* (prepared by the Town of Hadley, based on an earlier report by Dufresne-Henry) was reviewed in the preparation of this narrative. No original structural drawings or subsurface soils information was available. No exploratory demolition or geotechnical investigations were conducted in conjunction with this study.

Structural Description:

Based on FBRA site observations, the Town Garage is a wood framed structure with a sloped roof, supported by concrete masonry (CMU) bearing walls. The roof is a gable form, with an east-west ridge line. Roof construction consists of plywood sheathing spanning to

prefabricated, metal plate connected wood trusses, which clear span the building (nearly 60 feet) in the north-south direction. The live (snow) load capacity of the roof construction is unknown. Roofing is asphalt shingles. Details of the mezzanine floor construction were not determined during the site visit. There is no clearly defined lateral force resisting system in the building (constructed prior to the first edition of the Massachusetts State Building Code); the Town Garage does not comply with current seismic code requirements. Lateral forces (wind and seismic) are resisted by unreinforced masonry (CMU) walls (both interior and exterior). Foundations are assumed to be conventional spread footings. Floor construction is a concrete slab on grade. A centrally located, east-west trench drain runs the full length of the larger garage bay. Foundation/frost walls are cast-in-place concrete. Exterior walls are 12" CMU construction (presumably unreinforced). The clear height to the (flat) ceiling is approximately fourteen feet.

Roof framing is not protected; the building is not sprinklered.

Structural Conditions/Issues – Comments and Recommendations:

Structural conditions at the Town Garage were observed during a brief tour of the building on July 23, 2013. The portable offices and the other structures on the site were not reviewed. Generally speaking, the roof construction of the garage appears to be performing satisfactorily; there is no evidence of structural distress that would indicate significantly overstressed, deteriorated or failed structural members. Foundations appear to be performing adequately; there are no signs of significant, total or differential settlements.

Structural/structurally related conditions observed during site visit are noted below:

- The condition of the exterior CMU wall construction is generally satisfactory; however, a step crack was observed at the west end of the overhead door opening in the south exterior wall of the larger garage bay. This may be to rust jacking of the steel lintel, and/or from minor settlement at the door jamb. While this condition presents no immediate concern, further review and repair is recommended.
- As noted earlier in this narrative, the live load capacity of the roof framing is unknown. However, the roof structure appears to be performing satisfactorily and there are no snow drifting conditions that might be a concern. However, due to the long span of these trusses, FBRA recommends that the continuous, 2x strongback bracing for individual truss members be inspected and be securely anchored to the gable end walls if not correctly done during the original construction.



Building Code Requirements and Additional Comments:

Massachusetts State Building Code Requirements – General Comments:

Proposed renovations, alterations, repairs and additions to the Town Garage would be governed by the provisions of the Massachusetts State Building Code (MSBC – 780 CMR 8th Edition) and the Massachusetts Existing Building Code (MEBC). These documents are based on amended versions of the 2009 International Building Code (IBC) and the 2009 International Existing Building Code (IEBC), respectively.

The MEBC allows the Design Team to choose one of three (3) compliance methods. Structurally, the Prescriptive Compliance Method is preferred. Regardless of the compliance method chosen, the MEBC may require that the unreinforced masonry (CMU) walls of the building be evaluated with respect to the provisions of Appendix A1 of the IEBC (depending on the extent of the renovation/alteration work and/or proposed change(s) in use). In addition, Section 101.5.4.0 of the Massachusetts Amendments (Chapter 34) requires that the existing building be investigated in sufficient detail to ascertain the effects of the proposed work (or change in use) on the area under consideration, and the entire building or structure and its foundations, if impacted by the proposed work or change in use.

Additions – General Comments:

The design and construction of any proposed additions to the Town Garage would be conducted in accordance with the Code for new construction. Significant additions should be structurally separated from the existing building by an expansion (seismic) joint to avoid an increase in gravity loads and/or lateral loads to existing structural elements. Smaller additions can be structurally attached to the existing building, provided they do not increase the demand - capacity ratio of the existing lateral force resisting elements in the building by more than 10%. Presently, no additions to this building are proposed.

Renovations/Alterations – General Comments:

Where proposed alterations to existing structural elements carrying gravity loads results in a stress increase of over 5%, the affected element will need to be reinforced or replaced to comply with the Code for new construction. Proposed alterations to existing structural elements carrying lateral load (masonry walls in this case) which result in an increase in the demand - capacity ratio of over 10% should be avoided, if possible. Essentially, this means that removal of, or major alterations to the existing, unreinforced masonry walls in the building should be minimized (adding new garage doors in the larger bay would be an issue). If this is not avoidable, more significant seismic upgrades/reinforcing will be required; potentially including the addition of lateral force resisting elements (braces, shear walls, etc.).

End of Structural Report

TOWN BUILDING ASSESSMENT STUDY
Town of Hadley, Massachusetts

Department of Public Works

South Middle Street

MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS

Prepared By:

Consulting Engineering Services
510 Chapman Street, Suite 201
Canton, MA 02021

July 30, 2013

GENERAL

The mechanical, electrical, plumbing, and fire protection systems were reviewed in conformance with the requirements of the following State and National codes and regulations, as applicable:

- Massachusetts State Building Code 8th Edition
- Massachusetts State Fire Prevention Regulations
- NFPA Latest Editions
- Massachusetts Plumbing Code
- Massachusetts Mechanical Code
- Massachusetts Electrical code (NEC 2011 Edition)
- Illuminating Engineering Society of North America (IESNA) Lighting Handbook
- ASHRAE 90.1 Latest Edition

The scope of this study does not include operational assessment of the fixtures and equipment reviewed; it includes only a brief visual review of the fixtures and equipment. Therefore notes regarding the condition of the fixtures and equipment may or may not be indicative of the actual condition of the systems and equipment and/or the expected life of the fixtures and equipment. Therefore it is recommended that services of a qualified technician be retained to evaluate the actual condition of fixtures and equipment prior to replacement.

MECHANICAL

HEATING

A cast iron oil fired boiler provides heat for the main building, and it appears to be in good condition. The pumping systems consists of three zone pumps and a packaged Taco controller controls the plant, and these components appear to be in good condition. The oil tank for the boiler is located above grade outside of building, and it appears to be in good condition.

The office area of the main building, and the smaller trailer attached to the main building, have electric baseboard heaters controlled by non-programmable thermostats. The baseboard heaters are in poor condition.

The repair garage has a waste oil heater that appears to be in fair condition, with a dedicated waste oil storage tank below. It also has two hot water unit heaters that appear to be in fair condition. The units are controlled by a programmable and a non-programmable thermostat.

The larger garage area is heated with hot water unit heaters.

The larger trailer to the North is heated by electric resistance baseboard heaters controlled by programmable thermostats. The larger trailer to the South is heated by electric resistance baseboard heaters controlled by non-programmable thermostats.

AIR CONDITIONING

Both of the larger trailers have window mounted air conditioners. The larger trailer to the North also has a portable flexible duct vented type air conditioner.

The smaller trailer, attached to the main building, has a thru-the-wall air conditioner that appears to be in fair to poor condition.

VENTILATION

There are no ventilation systems serving the main building. The only mechanical ventilation systems serving the trailers are the restroom exhaust fans.

RECOMMENDATIONS

Replace the non-programmable thermostats with programmable thermostats.

Replace the electric baseboard heaters in the main building and the trailer attached to the main building. Alternatively, replace them with hot water baseboard heaters connected to the main building heating system.

ELECTRICAL

EXISTING SYSTEMS

The main building is served via an overhead 200A 208Y/120 volt 3 phase service and the remote office buildings are served via a 200A single phase service. The main building is connected to the generator at the sewer plant via a manual transfer switch.

While the main service does not have any nuisance tripping, local breakers trip on a regular basis due to shared loads from piecemeal electrical work over the years.

RECOMMENDATIONS

The main panel should be replaced with a new panel, and a secondary subpanel with all new circuits run (including dedicated power feeds for chop saws and large load tools). Additionally, the service should be upgraded to 400 amps and the office trailers should be connected to the new service. Connecting the trailers to the main service will remove the need for two services and will allow back-up power to certain loads without using extensions cords as is done currently.

The lighting and low voltage systems in this building should be replaced. Many years of piecemeal fixes has left the systems in disarray.

PLUMBING

EXISTING SYSTEMS

The domestic water is from the municipal water system.

A tank type electric water heater provides hot water for the main building. It appears to be in fair condition.

The domestic water for the two larger trailers is from the main building. It is routed overhead, exposed outside of the buildings, from the main building to the trailer to the South, and from the trailer to the South to the trailer to the North. Though these pipes are insulated, per Gary Berg they have no protection from freezing.

The two larger trailers each have a restroom. Neither of the restrooms is accessible.

The trailer to the North has a counter mounted vitreous china sink and a floor mounted tank type vitreous china water closet that appears to be in good condition. The water closet is a low flow fixture. There is a non-accessible counter mounted stainless steel sink which appears to be in good condition. A small electric tank type water heater provides hot water for the lavatory and the sink, and it appears to be in good condition.

The trailer to the South has a wall mounted vitreous china sink and a floor mounted tank type vitreous china water closet that appear to be in good condition. The water closet is not a low flow fixture. A small electric tank type water heater provides hot water for the lavatory, and it appears to be in fair condition.

There are trench drains in the larger garage which drain to a buried waste oil tank outside the building. This tank is manually emptied when required.

The restroom in the main building includes a floor mounted vitreous china tank type water closet that appears to be in fair condition, however it is not accessible. The restroom also includes a shower, however the valve is does not appear to be pressure balanced. The restroom does not have a lavatory; the service sink adjacent to the restroom serves as a lavatory. The service sink is wall mounted and appears to be in fair condition, but it is not accessible. The drinking fountain/water bottle filler adjacent to the service sink appears to be in fair condition.

There is a combination emergency eyewash/shower unit serving the smaller/service garage.

RECOMMENDATIONS

Provide self-regulating electric heat tape on the water piping exposed outside of the building.

If either trailer is required to be accessible, the existing fixtures should be replaced with accessible fixtures. For the trailer to the South, if the water closet is not replaced with an accessible fixture, it should be replaced with a low flow fixture.

Replace the water closet in the main building with an accessible fixture. Provide an accessible lavatory for that restroom. Replace the shower valve with a pressure balanced valve. If accessibility is required, replace the shower and the shower valve with accessible components.

FIRE PROTECTION

The building does not have a sprinkler system.

Description	Note	Quantity	Unit	Price	Total
Basic Quantities		GFA		Girth	
basement		-	sf	-	lf
level 1		9,916	sf	390	lf
level 2		533	sf	-	lf

Life Safety

2	Stairs to Mezzanine do not Meet OSHA				\$
	demo mezzanine stair	1	flt	1,017.81	1,018
	disposal	1	ea	305.40	305
	new stair & rails	1	flt	20,020.88	20,021
	Sub Total - Direct Cost				21,344
	General Conditions	20.00%			4,269
	Overhead & Profit	23.00%			5,891
	Design & Price Reserve	15.00%			4,726
	Escalation	May-15	8.16%		2,956
	Bond		3.00%		1,176
	Soft Costs/Design Fees		30.00%		12,109
	Total Project Cost				52,471

Health

2 No work identified

Universal Accessibility

3	Accessible Shower/Restrooms				\$
	demo restrooms	66	sf	10.32	681
	disposal	1	ea	204.30	204
	new accessible restrooms	1	ea	26,000.00	26,000
	new shower and trim	1	ea	4,558.50	4,559
	Sub Total - Direct Cost				31,444
	General Conditions	20.00%			6,289
	Overhead & Profit	23.00%			8,679
	Design & Price Reserve	15.00%			6,962
	Escalation	May-15	8.16%		4,355
	Bond		3.00%		1,732
	Soft Costs/Design Fees		30.00%		17,838
	Total Project Cost				77,299

TOWN OF HADLEY FACILITIES AUDIT
HIGHWAY DIVISION - DPW
HADLEY, MA 01778

GFA 10,449



Description	Note	Quantity	Unit	Price	Total
3 Staff Kitchen					\$
replace sink with accessible sink		1	ea	1,793.01	1,793
disposal		1	ea	75.00	75
add counters with knee space at sinks		1	ea	2,914.56	2,915
relocate microwave & power		1	ea	506.00	506
Sub Total - Direct Cost					5,289
General Conditions		20.00%			1,058
Overhead & Profit		23.00%			1,460
Design & Price Reserve		15.00%			1,171
Escalation	May-15	8.16%			733
Bond		3.00%			291
Soft Costs/Design Fees		30.00%			3,001
Total Project Cost					13,003

3 Replace Knobsets					\$
replace knobset with lever set		22	ea	861.46	18,952
disposal		1	ea	125.00	125
Sub Total - Direct Cost					19,077
General Conditions		20.00%			3,815
Overhead & Profit		23.00%			5,265
Design & Price Reserve		15.00%			4,224
Escalation	May-15	8.16%			2,642
Bond		3.00%			1,051
Soft Costs/Design Fees		30.00%			10,822
Total Project Cost					46,896

Site

2 No work identified

Exterior

3 Repaint Exterior, Scrape & Sand					\$
painter	ladder work	320	hrs	67.10	21,472
materials		1	ls	5,233.80	5,234
Sub Total - Direct Cost					26,706
General Conditions		20.00%			5,341
Overhead & Profit		23.00%			7,371
Design & Price Reserve		15.00%			5,913
Escalation	May-15	8.16%			3,699
Bond		3.00%			1,471
Soft Costs/Design Fees		30.00%			15,150
Total Project Cost					\$65,651

TOWN OF HADLEY FACILITIES AUDIT
HIGHWAY DIVISION - DPW
HADLEY, MA 01778

GFA

10,449



Description	Note	Quantity	Unit	Price	Total
3 Overhead Doors					\$
remove gates and remnants		594	sf	2.11	1,253
disposal		1	ea	375.90	376
overhead doors & frames	10x10	7	ea	4,756.50	33,296
siding & exterior wall framing		290	sf	46.22	13,404
wood framed plastic glass clerestory		594	sf	39.64	23,546
Sub Total - Direct Cost					71,875
General Conditions		20.00%			14,375
Overhead & Profit		23.00%			19,838
Design & Price Reserve		15.00%			15,913
Escalation	May-15	8.16%			9,955
Bond		2.40%			3,167
Soft Costs/Design Fees		30.00%			40,537
Total Project Cost					175,660
3 Power Wash Siding & Restain Pole Barn					\$
painter	ladder work	200	hrs	67.10	13,420
materials		1	ls	3,271.13	3,271
Sub Total - Direct Cost					16,691
General Conditions		20.00%			3,338
Overhead & Profit		23.00%			4,607
Design & Price Reserve		15.00%			3,695
Escalation	May-15	8.16%			2,312
Bond		3.00%			919
Soft Costs/Design Fees		30.00%			9,469
Total Project Cost					\$41,031
3 Relocate Salt Pile					\$
new salt shed	14x20	280	sf	208.00	58,240
move salt to new location		1	ea	1,521.00	1,521
Sub Total - Direct Cost					59,761
General Conditions		20.00%			11,952
Overhead & Profit		23.00%			16,494
Design & Price Reserve		15.00%			13,231
Escalation	May-15	8.16%			8,277
Bond		2.40%			2,633
Soft Costs/Design Fees		30.00%			33,704
Total Project Cost					146,052

Description	Note	Quantity	Unit	Price	Total
Interior					
3 Painting					\$
paint/stain all interior surfaces		10,449	sf	2.08	21,734
Sub Total - Direct Cost					21,734
General Conditions		20.00%			4,347
Overhead & Profit		23.00%			5,999
Design & Price Reserve		15.00%			4,812
Escalation	May-15	8.16%			3,010
Bond		3.00%			1,197
Soft Costs/Design Fees		30.00%			12,330
Total Project Cost					53,429
3 Add Light & Power to Pole Barn					\$
new electrical systems		3,171	sf	19.60	62,152
cutting & patching		1	ea	1,553.80	1,554
Sub Total - Direct Cost					63,706
General Conditions		20.00%			12,741
Overhead & Profit		23.00%			17,583
Design & Price Reserve		15.00%			14,105
Escalation	May-15	8.16%			8,824
Bond		2.40%			2,807
Soft Costs/Design Fees		30.00%			35,930
Total Project Cost					155,696
4 Add HVAC to Repair Shop					\$
new HVAC systems		1,410	sf	31.36	44,218
new electrical feeders		1,410	sf	1.47	2,073
cutting & patching		1	ea	1,157.28	1,157
Sub Total - Direct Cost					47,448
General Conditions		20.00%			9,490
Overhead & Profit		23.00%			13,096
Design & Price Reserve		15.00%			10,505
Escalation	May-15	8.16%			6,572
Bond		3.00%			2,613
Soft Costs/Design Fees		30.00%			26,917
Total Project Cost					116,641

Description	Note	Quantity	Unit	Price	Total
3 Vehicle Lift					\$
new column lift	18,000#	4	ea	16,236.25	64,945
building improvements to accommodate lift	allowance	1	ea	16,000.00	16,000
Total Project Cost					<u>80,945</u>

Energy & Water Conservation

3 Windows					\$
demo existing windows		128	sf	3.10	397
disposal		1	ea	119.10	119
new windows		128	sf	58.14	7,442
Sub Total - Direct Cost					<u>7,958</u>
General Conditions		20.00%			1,592
Overhead & Profit		23.00%			2,197
Design & Price Reserve		15.00%			1,762
Escalation	May-15	8.16%			1,102
Bond		3.00%			438
Soft Costs/Design Fees		30.00%			4,515
Total Project Cost					<u>19,564</u>

3 Exterior Walls					\$
frame out interior of exterior wall		5,332	sf	4.71	25,114
insulation and vapor barrier		5,332	sf	5.31	28,313
drywall		5,332	sf	2.02	10,771
paint walls		5,332	sf	1.00	5,332
Sub Total - Direct Cost					<u>69,530</u>
General Conditions		20.00%			13,906
Overhead & Profit		23.00%			19,190
Design & Price Reserve		15.00%			15,394
Escalation	May-15	8.16%			9,630
Bond		2.40%			3,064
Soft Costs/Design Fees		30.00%			39,214
Total Project Cost					<u>169,928</u>

3 Attic Insulation					\$
insulate attic cavity		9,916	sf	8.49	84,187
Sub Total - Direct Cost					<u>84,187</u>
General Conditions		20.00%			16,837
Overhead & Profit		23.00%			23,236
Design & Price Reserve		15.00%			18,639
Escalation	May-15	8.16%			11,661
Bond		2.40%			3,709
Soft Costs/Design Fees		30.00%			47,481
Total Project Cost					<u>205,750</u>

Description	Note	Quantity	Unit	Price	Total
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Hazardous Materials

2 No work identified

Structural

3	Crack in Garage Bay Wall				\$
	repair cracked cmu	allow	1 ea	1,800.00	1,800
Sub Total - Direct Cost					1,800
	General Conditions		20.00%		360
	Overhead & Profit		23.00%		497
	Design & Price Reserve		15.00%		399
	Escalation	May-15	8.16%		249
	Bond		3.00%		99
	Soft Costs/Design Fees		30.00%		1,021
Total Project Cost					4,425

3	Anchor Truss Bracing				\$
	anchor bracing to gable end walls	allow	1 ea	9,060.00	9,060
Sub Total - Direct Cost					9,060
	General Conditions		20.00%		1,812
	Overhead & Profit		23.00%		2,501
	Design & Price Reserve		15.00%		2,006
	Escalation	May-15	8.16%		1,255
	Bond		3.00%		499
	Soft Costs/Design Fees		30.00%		5,140
Total Project Cost					22,273

Mechanical

3	Replace Thermostat				\$
	remove thermostat		8 ea	25.80	206
	disposal		1 ea	61.80	62
	new programmable thermostat		8 ea	506.50	4,052
Sub Total - Direct Cost					4,320
	General Conditions		20.00%		864
	Overhead & Profit		23.00%		1,192
	Design & Price Reserve		15.00%		956
	Escalation	May-15	8.16%		598
	Bond		3.00%		238
	Soft Costs/Design Fees		30.00%		2,450
Total Project Cost					10,618

TOWN OF HADLEY FACILITIES AUDIT
HIGHWAY DIVISION - DPW
HADLEY, MA 01778

GFA

10,449



Description	Note	Quantity	Unit	Price	Total
3 Replace Baseboard Heaters					\$
demo existing heaters		10,449	sf	0.49	5,120
disposal		1	ea	1,536.00	1,536
new hot water heating system		10,449	sf	9.62	100,519
Sub Total - Direct Cost					107,175
General Conditions		20.00%			21,435
Overhead & Profit		23.00%			29,580
Design & Price Reserve		15.00%			23,729
Escalation	May-15	8.16%			14,845
Bond		2.40%			4,722
Soft Costs/Design Fees		30.00%			60,446
Total Project Cost					261,932

Electrical

3 Main Panel					\$
demo existing main panel		1	ea	258.00	258
disposal		1	ea	77.40	77
new service	400A	1	ea	21,658.00	21,658
new upsized main panel	400A	1	ea	9,408.00	9,408
new sub panel		1	ea	4,900.00	4,900
new feeders		10,449	sf	3.43	35,840
cutting & patching		1	ea	2,507.40	2,507
Sub Total - Direct Cost					74,648
General Conditions		20.00%			14,930
Overhead & Profit		23.00%			20,603
Design & Price Reserve		15.00%			16,527
Escalation	May-15	8.16%			10,339
Bond		2.40%			3,289
Soft Costs/Design Fees		30.00%			42,101
Total Project Cost					182,437

3 Lighting & low Voltage Systems					\$
demo existing systems		10,449	sf	0.77	8,046
disposal		1	ea	2,413.80	2,414
new lighting & low voltage systems		10,449	sf	14.70	153,600
cutting & patching		1	ea	3,840.00	3,840
Sub Total - Direct Cost					167,900
General Conditions		20.00%			33,580
Overhead & Profit		18.00%			36,266
Design & Price Reserve		15.00%			35,662
Escalation	May-15	8.16%			22,310
Bond		2.40%			7,097
Soft Costs/Design Fees		30.00%			90,845
Total Project Cost					393,660

Description	Note	Quantity	Unit	Price	Total
Plumbing					
3 Heat Tape					\$
heat tape exposed exterior water pipe	allow	1	ea	5,000.00	5,000
Sub Total - Direct Cost					5,000
General Conditions		20.00%			1,000
Overhead & Profit		23.00%			1,380
Design & Price Reserve		15.00%			1,107
Escalation	May-15	8.16%			693
Bond		3.00%			275
Soft Costs/Design Fees		30.00%			2,837
Total Project Cost					12,292
3 Plumbing Fixtures at Trailers					\$
demo plumbing fixtures		6	ea	77.40	464
disposal		1	ea	139.20	139
new plumbing fixtures and trim		6	ea	2,026.00	12,156
Sub Total - Direct Cost					12,759
General Conditions		20.00%			2,552
Overhead & Profit		23.00%			3,522
Design & Price Reserve		15.00%			2,825
Escalation	May-15	8.16%			1,767
Bond		3.00%			703
Soft Costs/Design Fees		30.00%			7,238
Total Project Cost					31,366
3 Plumbing Fixtures at Main Building					\$
demo plumbing fixtures		3	ea	77.40	232
disposal		1	ea	69.60	70
new plumbing fixtures and trim		2	ea	2,026.00	4,052
new shower and trim		1	ea	4,558.50	4,559
Sub Total - Direct Cost					8,913
General Conditions		20.00%			1,783
Overhead & Profit		23.00%			2,460
Design & Price Reserve		15.00%			1,973
Escalation	May-15	8.16%			1,235
Bond		3.00%			491
Soft Costs/Design Fees		30.00%			5,057
Total Project Cost					21,912

Description	Note	Quantity	Unit	Price	Total
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Fire Protection

3	Sprinkler System				\$
	new water service & backflow preventer	1	ea	15,195.00	15,195
	sprinkler system	10,449	sf	5.07	52,976
	cutting & patching	1	ea	2,648.80	2,649
	Sub Total - Direct Cost				70,820
	General Conditions	20.00%			14,164
	Overhead & Profit	23.00%			19,546
	Design & Price Reserve	15.00%			15,680
	Escalation	May-15	8.16%		9,809
	Bond		2.40%		3,120
	Soft Costs/Design Fees		30.00%		39,942
	Total Project Cost				173,081

Facilities Plan for Town Buildings
Hadley, Massachusetts

HIGHWAY GARAGE FUNCTIONS

	Existing Area		Option #1		Option #2	
Tire Storage	98					
Equip./ Small Vehicle Stor.					5703	
Large Vehicle Storage					1971	
Drive Thru Wash			1360		1360	
Bay's 1-8			8712			
Bay's 3-5					3138	
Maintenance Bay's 9 & 10			3635			
maintenance Bay's 1 & 2					3264	
Bay Two	5604					
Bay One	1410					
Parts Storage	135		193		455	
Highway Department			159		159	
Town Mechanic			184		184	
Director			136		136	
Men's Shower			77		77	
Women's Shower			77		77	
Spray Booth					762	
Reception			226		207	
Conference Room			145		145	
General Office			432		432	
File Room			158		197	
Water Tank and Boiler	64					
Kitchen 1	56		92		98	
KITCHEN #2			53		53	
Bathroom 1	66					
Mens Room			53		53	
Women's Room			53		53	
Storage 1	144					
Corridor 1	27					
Office 1	89					
Break Room	112		279		280	
Mezzanne	533					
Unassigned	134		583		506	
Total		8472		16607		19310

Office 2	267					
File Room	92					
Corridor 2	177					
Bath. 2	48					
Bath. 3	48					
Unassigned	18					
Total		650				

Director's Office	136					
Office 3	406					
Kitchen 2	48					
Bath. 4	48					
Unassigned	12					
Total		650				