

## EXISTING CONDITIONS & RECOMMENDATIONS

### SITE:

#### Conditions

The site topography forms a gentle bowl form with the low point southwest of the building. Topography is generally level along the east, north and west sides of the building and slopes down along the south side. At the rear of the building a east to west running concrete retaining wall contains the higher ground adjacent to the west elevation.

A secondary building, a fire-proof brick storage structure with a hipped roof, is situated about thirty feet west of the town hall.

The town hall is bounded on three sides by paved surfaces. On the west, along Main Street, a concrete sidewalk abuts the raised granite plinth of the portico. The sidewalk turns the corner onto Maple Street but ends in sloped asphalt paving that extends from the north foundations to the street. This thin strip of paving has been stripped for parking. On the south side the paving extends from the foundations out to the property line and includes a shared driveway from Main Street to a loosely striped parking area behind the adjacent commercial structures.

#### Recommendations

- Spot repair and patch paving as required.
- Stripe the parking when lines are faded.
- Monitor area around retaining wall for erosion.
- Coordinate with town on sidewalk maintenance.



Aerial view of site from south west. (Image from Bing.com)



Brick fire proof storage building and concrete ramp at south side of building.



Parking lot on west side.

## BUILDING EXTERIOR: ROOF

### Conditions

Town Hall has a simple gable roof. The ridge runs east to west and the present roofing material is slate. One chimney pierces the roof on the north side in the second bay.

The slate is near the end of its useful life. Repairs have become a yearly requirement and in 2010 there was interior damage from ice damming. Falling snow is a continuing concern at the portico and above the fire escape and the south side door into the basement stair landing.

Wood framing supporting the roof consists of rafters, purlins and trusses. The purlins are overstressed and the top chord of one truss has failed. There are no trusses at the westernmost bays of the building. Past concerns about the trusses resulted in the installation of tie rods.

### Recommendations

- Reroof with slate or wood shingle as the preferred historic materials. Asphalt shingle or metal roofing would have no historic integrity but would be less costly.
- Install rail type snow retention system along eaves above entries.
- Install new supplemental truss framing and purlins below existing to strengthen roof framing. These would be visible in the Meeting Hall but would allow removal of the acoustical tile flat ceiling and revealing the historic ceiling height. The trusses would be encased to create architectural elements. The tie rods would remain, but new sag bars would be installed that would be more architectural.



Aerial view of roof from south west. (Image from Bing.com)



Snow rail and chimney flashing at slate roof.



Snow rail and roof hatch on slate roof.

## NORTH ELEVATION

### Conditions

The paint finish at the facade (north elevation) is in generally good condition. Areas of failure were observed at the architrave and the column bases, where moisture penetration is an ongoing problem. The building is on a recurring paint cycle with each elevation scheduled for repainting every five to seven years.

The windows are in poor condition. The storm windows were recently replaced. The wide single entry door is in fair condition.

There are areas of separation between granite step components and several cracks in the concrete slab at the portico. The foundation walls have deteriorated at all four elevations.

### Recommendations

- Spot repair and repaint trim elements at the facade. Repaint the entire elevation on a cyclical schedule.
- Repair, reglaze and repaint all windows.
- Repair and reinstall the louvered vent at the pediment and the original double entry doors with sidelights. These actions will help restore the building's Greek Revival character.
- Repoint the granite steps and repair or replace cracks the concrete slab.
- Cut and repoint all foundation stones.



The facade (north elevation).



Shifted, separated granite steps at the south elevation. Paint failure at the column base.



Original louvered vent stored in attic.

## EAST ELEVATION

### Conditions

The paint on the east elevation is in fair condition, with areas of peeling seen primarily at the eastern half of the building around window openings.

The windows are in poor condition. The aluminum storm windows are in fair condition. The basement windows have been filled in with plywood or vent louvers.

There are gaps and failed mortar joints in the granite foundation

The slate roof is in poor condition and is nearing the end of its useful life. Snow guards over the portico are rusted.

There are no gutters or downspouts.

### Recommendations

- Spot repair and repaint wood clapboards. Repaint the entire elevation on a cyclical schedule.
- Repair, reglaze and repaint all windows on the first and second levels.
- **Restore the basement windows?**
- Repoint the granite foundation.



South elevation.



Peeling paint on wood siding around windows at both floor levels.



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## SOUTH ELEVATION

### Conditions

The paint on the south elevation is in good condition.

The windows are in poor condition. The center window on the second floor was blocked in to accommodate the stage inside. The aluminum storm windows are in good condition. The basement windows have been filled in with plywood.

There are gaps and failed mortar joints in the granite foundation

The concrete handicap access ramp is pitted, cracked and rust stained around and under the painted metal posts and railings. The metal posts and railings are exfoliating and causing expansion cracks in the concrete.

### Recommendations

- Repaint the entire elevation on a cyclical schedule.
- Repair, reglaze and repaint all windows on the first and second levels.
- Restore the basement windows?
- The proposed schematic design calls for the concrete ramp to be removed. If it remains, it should be repaired and the railings refinished.



South elevation.



The concrete handicap ramp is in poor condition.

## WEST ELEVATION

### Conditions

The paint on the west elevation is in poor condition. Painting this elevation was postponed in anticipation of proposed alterations and construction of a handicap access addition.

The windows are in poor condition. One window was blocked out and two were converted to egress doors when the fire escape was installed. The fire escape is rusted. Several basement level windows were filled in with plywood. The two diagonal plank loading doors and the small vertical plank door at the northwest corner are in fair condition.

The granite foundation is clad in painted brick on this elevation. There is widespread mortar joint failure. The concrete entry platform with metal railing at the northwest corner is in poor condition.

### Recommendations

The proposed schematic design calls for removal of the fire escape and significant alterations at this elevation. As part of this project:

- Repaint the entire elevation on a cyclical schedule.
- Repair, reglaze and repaint all windows.
- Repoint the masonry foundation.
- Repair the concrete entry platform at the northwest corner.



Poor paint conditions at the west elevation.



Cracked and stained concrete entry platform at the northwest corner. Painted masonry foundation with failed mortar joints and peeling paint.

## BUILDING INTERIOR: BASEMENT

### Conditions

The unfinished basement, which has been subdivided by brick and concrete block walls into areas for storage and mechanicals, is damp and shows evidence of water infiltration at the north and east walls where mortar joints have deteriorated. Two vertical piers supporting the first floor framing beams are damaged, particularly at their bases. Several first floor framing beams have insufficient capacity for the load required.

The heating system is new and is adequate for the building. The electrical service is insufficient for the building needs; the fire alarm system is outdated. Exhaust fans in the rest rooms are outdated.

There is open plumbing in the basement; the fixture count is too low to support use of the upstairs hall per the building code. There is no fire protection sprinkler system in the building.

### Recommendations

- Replace damaged piers with hollow steel columns.
- Reinforce framing beams as required.
- Repoint foundation walls
- Upgrade the electrical service to support air conditioning and an elevator.
- Upgrade the fire alarm system and install a sprinkler system.
- Install a permanent dehumidifier.



New boilers installed in the basement. Areas of moisture seen on the floor.



Supply storage in the basement.



The original jail cell dates to the building's construction. ????

## FIRST FLOOR

### Conditions

Joists at the second floor framing have insufficient capacity for assembly use. The dropped ceiling is unattractive. Walls and trim in good condition. Carpeting is in fair condition. The original staircase at the northwest corner of the building has been reconfigured and is in worn condition. The toilet room configuration is not an efficient use of space and does not meet capacity for a fully occupied building.

### Recommendations

- Sister the joists as required with new framing.
- Remove dropped ceiling.
- Restore original staircase configuration and finishes.
- Replace restrooms with new, code complaint accessible facilities



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## SECOND FLOOR

### Conditions

The dropped ceiling is unattractive, historically inappropriate and creates a cramped feeling in the space. The acoustic ceiling tile shows water damage in several areas from roof leaks. The finish on the wood floor is worn. Paint finishes are in fair to good condition.

### Recommendations

- Remove dropped ceiling to create “cathedral” space.
- Refinish wood floor.
- Refresh paint finishes as required.



Dropped ceiling detracts from the aesthetics of the assembly room.



Water damage to acoustic tile ceiling.



Attic and roof framing over the assembly room.



Stairs to the assembly room balcony, which has been covered by the drop ceiling. Wood doors, trim and wainscot are among the remaining original Greek Revival details at the building interior.



Pendant lamp obscured by drop ceiling.



## PROGRAM OF NEEDS

The Program of Needs was determined through discussions with the 1835 Old Town Hall Committee. In addition to the listed program items, a major focus of the rehabilitation study was to make the entire building fully accessible by adding an elevator and a secondary means of egress.

### Second Floor

Assembly Room – 1928 SF

Occupancy: 275 Row Seating  
128 Tables + Chairs

Balcony – 274 SF

Occupancy: Unoccupied

Stage - 476 SF

Occupancy: 32

Support Space – 150 SF Minimum

Assembly room storage – 150 SF Minimum  
Tables & Chairs  
Audio visual system.

Second Floor Total – 2828 SF

### First Floor

Recreation Room – 1270 SF

Occupancy: 181 Row Seating  
85 Tables + Chairs

Conference Room - 390 SF

Occupancy: 26

Recreation Office – 150 SF

Recreation Director  
Full time, Monday – Friday  
Desk, files, guest chairs

Veterans Office – 100 SF

2 hr/wk  
Desk, files, guest chairs  
Possible to move to basement

Support Space – 395 SF

Recreation Room storage – 150 SF  
Tables & Chairs, Equipment

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Toilet Rooms – 225 SF

Female: assume building occupancy at 152

3 Toilets required, 125 SF

Male: assume building occupancy at 152

2 Toilets required, 100 SF

Janitors Closet – 20 SF

First Floor Total – 2550 SF

### Basement

Offices - 300 - 400 SF

Town offices

Kitchen – 200 to 300 SF

Food Preparation

Mechanical Room - 600 SF

Sprinkler room

Boiler room

Elevator machine room

Basement Total – 800 to 900 SF

## REGULATORY REVIEW SUMMARY

This section of the report describes in brief the applicability of the current building code (2009 International Existing Building Code – with Massachusetts Amendments), architectural access regulations, and the Town of Sterling zoning regulations.

The main purpose of the building code is to protect public health, safety and general welfare as they relate to the construction and occupancy of buildings and structures. Some issues affecting the life safety of occupants are left up to interpretation by the local building official. It is generally a good idea for owners of historic buildings to consult the local officials and discuss renovation ideas with them prior to filing for a building permit.

This summary of the code notes that the Old Town Hall has been maintained and used for other functions since the Meeting Hall's use was discontinued. The new use of the Old Town Hall will be for assembly gatherings.

For purposes of the building code, the Old Town Hall is categorized as a partially preserved building because it is listed on the State Inventory of Historic Places as a contributing building to the Sterling Center Historic District. There are generally few building code-mandated requirements for partially preserved buildings. They are exempted from energy code requirements for new buildings, including the stretch energy code, although the design for renovations seeks to improve the energy efficiency of the historic building envelope and systems.

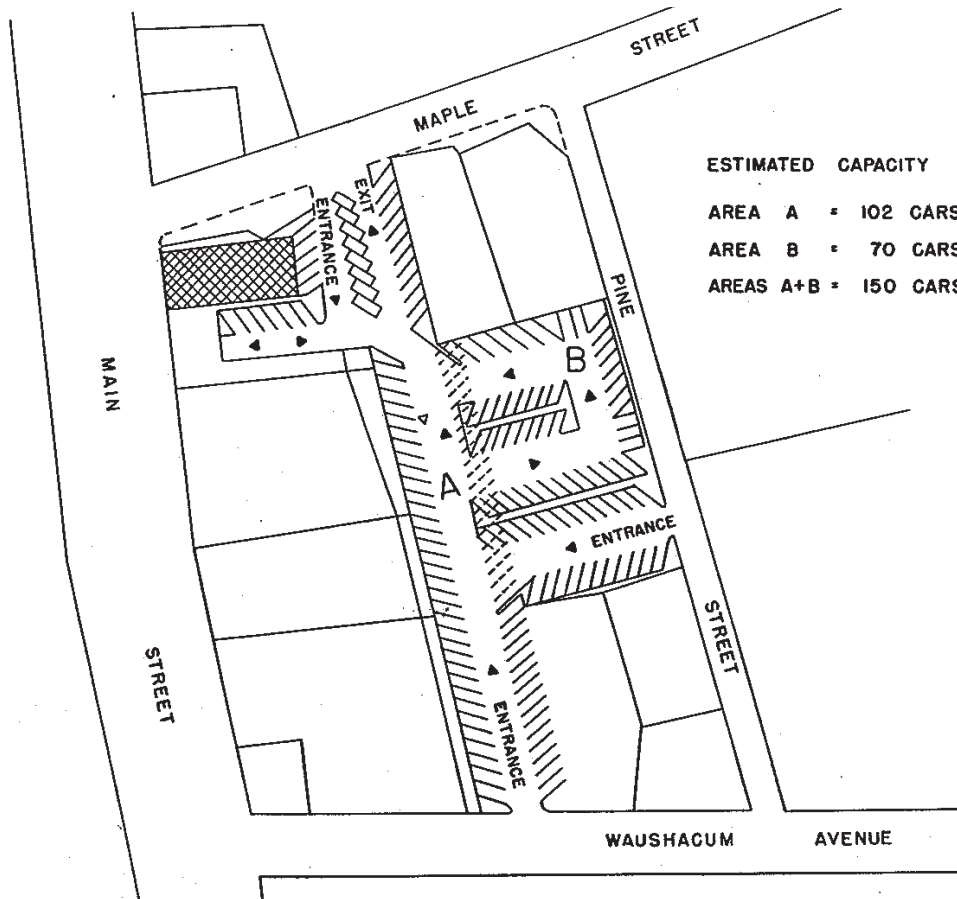
The greatest challenge at the Old Town Hall is to render the building fully accessible as required by the Massachusetts Architectural Access Board. There are currently two entrances into the building, one at the front and one at the rear. The front entrance is inaccessible and the rear has been made accessible through the construction of a large concrete ramp. The only other doorway into Old Town Hall is an emergency exit located on a stair landing on the West side of the building. Currently there is no elevator in the building which prevents communication from the first to second floor. The basement level is also inaccessible; however, present use of this space as mechanical space allows it to be this way. The second floor assembly hall also has a balcony and raised stage which present further vertical access challenges.

The assembly hall is serviced by a single staircase at the northwest corner of the building and a steel fire escape at the west side of the building. The current building code no longer recognizes exterior fire escapes as an acceptable means of egress, although it does allow existing fire escapes to remain in use. However, conceptual plans for an addition to Old Town Hall are in the location of the existing fire escape and an additional egress staircase will be required.

To address universal access and egress requirements, the approved conceptual design provides a small addition onto the west side of the Old Town Hall. The addition locates a new accessible entrance at grade at the basement floor level and an elevator to the first and second floors. A supplementary egress staircase is also provided in the addition. We further recommend constructing a combination of a sloped walkway and ramp to provide access to the front entrance of the building. Also, a vertical lift provides access to the stage in the Meeting Hall.

Difficult modifications would need to be made to the existing balcony in order to make it a safe space to inhabit. Furthermore, an additional lifting device would be required to make the balcony accessible. Owing to these challenges we recommend preventing use of the balcony.

Based upon the Town of Sterling Zoning By-Laws, dated May 16, 2011, the Old Town Hall is located in the Town Center district. The by-laws require adequate off street parking based upon a building's use. The proposed assembly use of the Old Town Hall requires that there is one parking space for every two occupants in the building. Based upon an occupancy of two hundred and sixty people, this



Municipal parking lot plan from 1962 Town of Sterling Master Plan.

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**1835 Old Town Hall Community Center**Sterling, MA  
MTS Project No. 1140.00

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**Applicable Building Codes:**

2009 International Existing Building Code – With Massachusetts Amendments  
521 CMR Architectural Access Board  
Plumbing Code  
Town of Sterling Zoning Regulations

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**A. Use Group Classification**

1. Assembly & Offices
2. First Floor: Business Group B (IBC 2009 Section 304 & Table 303.1)
3. Second Floor: Assembly Group A-3 – Community Hall (IBC 2009 Section 303)

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**B. Construction Classification**

1. Existing Construction Type V
2. Fire protection: Building to be equipped throughout with automatic fire suppression system

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**C. Occupant Load**

1. Occupant load is based on preliminary square footage analysis. It is assumed that the occupant load will be limited to lesser quantities pending structural analysis.
2. Occupancy Calculations (based on maximum code allowed sf. per occupant – 780 CMR Table 1008.1.2 for each use area)
  - a. Ground Floor: 13 (5 Kitchen [200 gross at 1024 SF] + 8 Mechanical/Storage [300 gross at 2339 SF])
  - b. First Floor: 93 (8 Office [100 gross at 833 SF] + 85 Assembly [15 net at 1270 SF] )
  - c. Second Floor Tables & Chairs: 160 (128 Assembly [15 net at 1928 SF] 32 Stage [15 net at 476 SF])
  - d. Second Floor Fixed Seating: 307 (275 Assembly [7 net at 1928 SF] 32 Stage[15 net at 476 SF])
  - e. Balcony Fixed Seating: 38 (Assembly 7 net at 267 SF)Overall Total: 304 – 451

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**D. Egress Requirements**

1. Egress Stairway width per Occupant = 0.2" (MA Amendments to IBC 2009, 1005.1)  
Required with Calculation for Actual Occupancy: 60.8", required minimum = 44" (IBC 2009 Section 1009.1)
  1. Total per level: Two stairs required at 44" min ea.
2. Egress Door Width per Occupant = .2" (IBC 2009 1005.1)  
Required with Calculation for Actual Occupancy: 60.8", code minimum = 32" clear
  1. Total per level: 2 required, 2 provided
3. Minimum Number of Exits Required (per floor) – 2 (1015.1)
4. Maximum Length of Exit Access Travel – 250 ft (IBC 2009 Table 1016.1)



5. Minimum Egress Passage/Corridor Width – 44"
6. Minimum Stairway Width – 44" (IBC 2009 Section 1009.1)

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**E. Plumbing Code – Based on 304 Occupants, 152 Men, 152 Women.**

1. Restrooms Required (Table 1: Minimum Facilities for Building Occupancy 248 CMR 2.10, Hall use)  
For Men: 1 per 100 or 2 total.  
For Women: 1 per 50 or 3 total.
2. Lavatories: 1 per 200 or 2 total
3. Water fountains: 1 per 1000 or 1 total.
4. Janitors Sink: 1 per floor or 3 total.

**F. Massachusetts Architectural Access Board**

1. Place of assembly: Assistive listening system installed in assembly areas accommodating at least 50 persons.
2. Access to balcony: Access is required to the balcony if it is opened to public use.
3. Access to stage: A ramp or a wheelchair lift is required to provide access to the stage.
4. Parking: 1 accessible space required for total parking of 15-25 spaces. Shall be van accessible.
5. Entrances: All public entrances of a building shall be accessible.
6. Door widths: 32" minimum.
7. Elevators: All multi-story buildings shall be served by a passenger elevator.
8. Toilet Rooms: At least one toilet and one sink in each toilet room must be accessible.

Code Analysis Prepared By:

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Thomas Burgess  
Architectural Designer

IEBC Notes:

Historic Building

1105.4 1 HR Occupancy separation may be omitted when the building is provided with an approved sprinkler.

1105.7 Door Swing. When approved by the code official, existing front doors need not swing in the direction of exit travel, provided that other approved exits having sufficient capacity to serve the total occupant load are provided. (Applies to occupant loads over 50 in new construction)

Means of Egress

1007.3 The area of refuge is not required at open exit access or exit stairways as permitted by sections 1016.1 and 1022.1 in buildings that are equipped with an automatic sprinkler system installed in accordance with code.