

# Task I – Exterior Building Conditions Assessment

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## Northbridge Memorial Town Hall Northbridge, Massachusetts



McGinley Kalsow  
& Associates, Inc.

ARCHITECTS & PRESERVATION PLANNERS

324 Broadway ~ PO Box 45248  
Somerville, MA 02145-2803

February 15, 2012

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## TASK I – EXTERIOR BUILDING CONDITIONS ASSESSMENT

### SECTION 1 - SUMMARY

#### 1.1 Project Scope

The Town of Northbridge engaged the services of McGinley Kalsow & Associates, Inc. to assess, report and provide bid documents on the historic Northbridge Memorial Town Hall. The project is divided into three separate tasks: Task I - Exterior Building Conditions Assessment, Task II - Comprehensive Window Survey and Task III – Bid Ready Documents/Plans. This report addresses Task I assessing the condition of the exterior envelope and site structures and identifying sources of water infiltration, building deterioration and safety issues. All recommendations for repair and restoration consider and are consistent with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*.

#### 1.2 Project Background

The Northbridge Memorial Town Hall (Photo 1) began construction in 1872 and was completed in 1876 on a corner lot donated by the local manufacturing family, Whitin (Whitinsville). The building is designed in the classical revival style having a slate roof with red brick pedimented gables, red brick masonry bearing walls, granite stringcourses, keystones, sills and rock faced granite foundation. The property is listed on the National Register of Historic Places as a contributing building to the Whitinsville Historic District. In the year 2000, a preservation restriction in perpetuity was recorded.



*Photo 1*

## 1.3 Project Approach

This report has addressed the Task I assignment through field inspections, a kick-off meeting with representatives of the Town of Northbridge and the Massachusetts Historical Commission to discuss project scope, research of existing historical documents, visual examination and documentation of existing conditions with photographs and a prioritized list of repair recommendations with associated probable costs.

Field inspections of the Northbridge Memorial Town Hall were conducted on January 12 and 16 2012 by McGinley Kalsow & Associates, Inc. A visual inspection of the attic, auditorium, second and first floor (Ground Floor) were made during a five hour period of rain with intermittent episodes of heavy rain on January 12 by Mark Almeda AIA. On January 16, Wendall Kalsow AIA and Mark Almeda AIA completed an aerial lift inspection of the Town Hall exterior.

## SECTION 2 – EXISTING CONDITIONS

### 2.1 Exterior Existing Conditions Survey

#### Slate Roofs

The slate on the gabled main roof (Photo 2), completely replaced in the year 2000, and the hipped roof of the stair tower are both in good condition and require simple maintenance-related repairs. Approximately a dozen slates are broken (Photo 3) or missing from both roofs. The annual loss of a small number of roof slates is typical and should be part of a scheduled maintenance plan. Slates typically break due to foot traffic during installation or roof repairs, failure of the slates themselves and over nailing. Two pipes on separate snow guards have slid sideward and should be fixed during routine roof maintenance.



*Photo 2*



*Photo 3*



### Membrane Roofs

The membrane roofs over the porticos at the north and east entrances are nearing the end of their service life and should be replaced in the next 3-4 years. The membrane patches (Photo 4) at edges and corners of the roof are failing and require immediate replacement.



*Photo 4*

### Copper Flashing

Generally the red copper ridge, valley and chimney flashing are in good condition. The copper ridge flashing at the stair tower roof has loose hold down clips that prevent the ridge flashing from wind damage and should be soldered to ridge. The sealant is failing at joints between the chimney and flashing (Photo 5) and needs to be replaced. The lead chimney flashing at the upper-corbelled ledges (Photo 6) is in need of replacement in the next two years.



*Photo 5*



*Photo 6*

### Gutters and Downspouts

The gutters and downspouts at the main roof are in good condition. The membrane lined gutters and outlets at the two portico roofs are clogged with leaf debris (Photo 7) and should be cleaned immediately. The below grade drainpipes connected to the downspouts are clogged and should have all debris removed and the pipes inspected by video camera to assess the condition of the below grade system. During a rainstorm, it was observed that the gutters were overflowing (Photo 8) at four locations at the main roof. The roof inspection revealed the gutter outlets were not clogged and there was no standing water in the gutters. Due to the clogged underground pipes (Photo 9) the rainwater is backing up the entire height of the downspouts and overflowing at the gutters outlet. The water cascading off the main and portico roofs due to clogged gutter outlets and underground drainpipes is causing the painted wood cornice and soffit (Photo 10) below to rot.



*Photo 7*



*Photo 8*



*Photo 9*



*Photo 10*



## Masonry

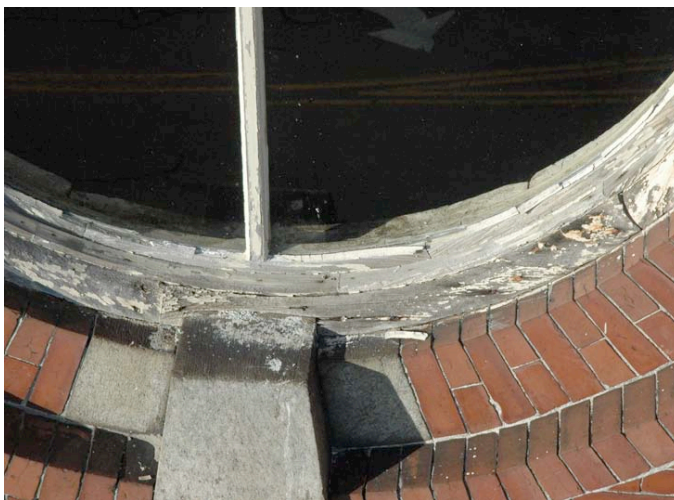
The brick masonry is generally in good condition except at selective areas on the façade and the chimney capstones. Two of the cast stone chimney capstones are severely broken (Photo 11), pose a potential safety hazard from falling sections and should be replaced. The southwest chimney has broken mortar (Photo 12) and joints should be cut and repointed. Brick areas with missing mortar at vertical joints below the circular attic windows (Photo 13) require selective cutting and repointing to stop water infiltration. Most brick areas in need of selective cutting and repointing of mortar joints (Photo 14) do not pose an immediate contribution to water infiltration or brick failure.



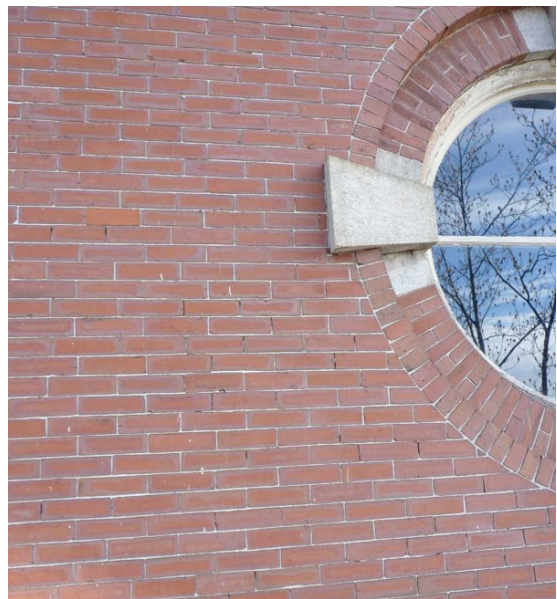
*Photo 11*



*Photo 12*



*Photo 13*



*Photo 14*

The granite building foundation, trim, lintels and posts are in good condition except for three cracked lintels (Photo 15) and minor cracks at selective stones at stringcourses. See structural survey report by MacLeod Consulting, Inc for analysis of granite lintels and trim.



*Photo 15*

The interior granite and brick walls along the western and northwestern foundation are missing mortar to a maximum depth of 1¼" (Photo 16) and need to be repointed. Painted interior brick walls along the eastern foundation are exhibiting efflorescence through the painted mortar joints (Photo 17) indicating moisture migration through the masonry from the exterior. This efflorescence is likely aggravated by roof water saturating the ground from the adjacent portico roof.



*Photo 16*



*Photo 17*



### Windows/Doors & Wood Trim

At present the broken and missing glass (Photo 18), failed glazing putty and sealants at window perimeters (Photo 19), failed paint (Photo 20) and broken/missing window hardware at the original historic windows are the major cause of water and air infiltration (Photo 21) into the building. The window repair work needs to be completed as the highest priority to prevent further damage to the interior and consequently escalating repair costs and loss of historic fabric. Overall the wood components of the historic windows are in repairable condition, which is the preferred course of action given by *Secretary of the Interior's Standards for the Treatment of Historic Properties*.



*Photo 18*



*Photo 19*



*Photo 20*



*Photo 21*

The exterior doors, thresholds and hardware are overall in serviceable condition. The blocked (Photo 22) and no longer code-required (due to the construction of exit tower) exit door from the auditorium to the 1947 steel fire escape leaks water at the threshold (Photo 23) and perimeter and minimally needs to be sealed to the weather.



*Photo 22*



*Photo 23*

The source of the water infiltration and a good coat of paint are necessary to halt the decay of wood architectural elements (Photo 24), rotted wood cornices and capitals (Photo 25) and trim. Most of the exterior woodwork is in salvageable condition with only local repairs. Preparation will require the removal of biological growth (Photo 26), repair and then painting.



*Photo 24*



*Photo 25*



*Photo 26*



### Miscellaneous Building Elements

The continuous soffit vent at the stair tower has missing (Photo 27) and separated sections of vent that need to be repaired to prevent access by insects and animal pests.

The large congregation of pigeons (Photo 28) on the slate roof can be controlled by the installation of a bird deterrent system eliminating potential health risks.



*Photo 27*



*Photo 28*

### Site Repairs

The site elements of retaining walls, rails, fences and walkways are in various conditions of maintenance and repair. The approximately 42” high retaining wall at the south and west perimeters (Photo 29) of the parking lot are collapsing and need to be rebuilt. Along the top section of the retaining wall, the steel and cast iron fencing has failed (Photo 30), is missing sections and poses a safety hazard along the south wall for pedestrians and vehicles due to the drop off. New historically appropriate fencing that meets current codes should be installed. The displaced granite stones at the east entrance stair cheek walls (Photo 31) need to be reset. The deteriorated mortar joint below the capstone (Photo 31) at the retaining wall along Douglas Street and the parking lot needs to be repaired to deter water infiltration into the wall below.



*Photo 29*



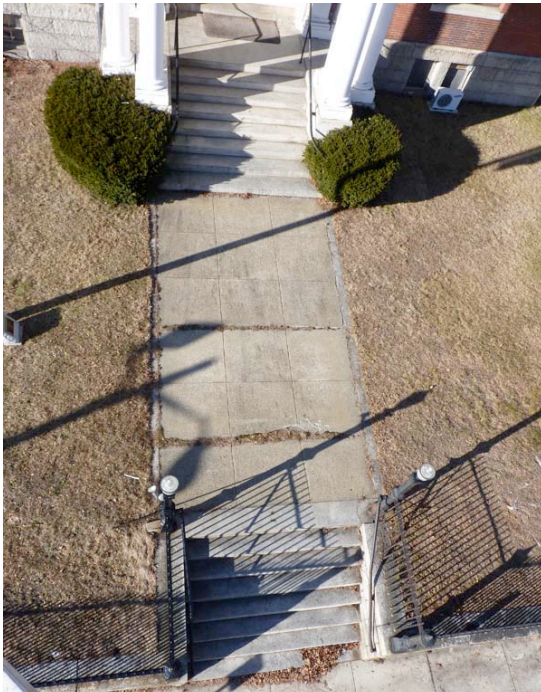
*Photo 30*



*Photo 31*

The concrete sidewalk in front of the closed east entrance has missing and spalling concrete (Photo 32) at half of the twelve sections and should be repaired before the entrance/exit is reopened for public safety concerns.

The concrete ramp curb (Photo 33) at the southern access to the stair tower has spalled at the posthole and should be repaired. The spall is a tripping hazard and should be removed immediately.



*Photo 32*



*Photo 33*



The existing iron fencing with decorative cast iron posts (Photo 34) at entrances is in good physical condition and requires maintenance painting. The bent balustrades near the north entrance pose no structural or safety issue. Any repairs would be cosmetic.



*Photo 34*

## **2.2 – STRUCUTRAL SURVEY**



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February 14, 2012

Mr. Mark Almeda  
McGinley Kalsow & Associates, Inc.  
324 Broadway, PO Box 45248  
Somerville, MA 02145

Re: Northbridge Town Hall Exterior  
Condition Assessment

Dear Mark:

At your request, I surveyed the exterior condition of the Northbridge Town Hall located at 7 Main Street, Northbridge, Massachusetts in the village of Whitinsville. The purpose of the survey is to identify repair needs and make structural recommendations for repairs.

This building is a circa 1872 brick bearing wall structure supporting wood framed floors and timber truss roof. The building's north face fronts on Main Street on a corner lot at the intersection of Douglas Road which is east of the property. A stone retaining wall marks the lot edge along Douglas Road and turns into the rear wall of the building. Another retaining wall marks the rear edge of the lot along which is a driveway that serves the property to the west. Another retaining wall separates the Town Hall from the building on the west side. The Town Hall parking area is bounded by these retaining walls which all serve to hold back fill above the lot.

## **SURVEY**

In general the masonry appeared in good condition. I did see some deterioration as follows:

1. A cracked stone lintel on the south elevation over the second window from the west (photo 1). The crack originates in the stone head joint above and ends part way down the stone post below.
2. A cracked stone lintel on the south elevation over the third window from the west (photo 2). The crack originates near the stone head joint above and ends at the bottom of the lintel.
3. A cracked stone lintel on the south elevation over the fourth window from the west (photo 3). The crack originates in the stone head joint above and ends at the bottom of the lintel.
4. A cracked stone lintel on the west elevation over the first window from the south (photo 4). The crack originates in the stone head joint above and ends part way down the stone post below.

5. Cracks in the new chimney on the west elevation. One crack starts several feet above grade and ends at the first floor along the south edge of the west face (photo 5). The crack is four inches from the south edge. Another crack starts several feet above the first floor and ends several feet below the second floor four inches from the north edge.
6. Cracks in stone jambs at window on east elevation first one from the south (photos 6 & 7).
7. Dislocation in retaining wall along the west property edge (photo 8). The wall is generally tipping. The dislocation is greatest at tree locations.
8. Dislocation in retaining wall along the south property edge (photo 9). Some coping is dislocated apparently from vehicles pushing the guard railings.
9. Joint deterioration in top portion of the retaining wall along Douglas Road and along the parking area. Dislocation in the cheek walls on the retaining wall serving the east entry.

I did look briefly at the attic framing. It appears in good condition.

## EVALUATION

The likely causes of the deterioration identified above are as follows:

1. Stone window lintels, posts, and jambs. The lintels are double span type and are breaking at their center supports. The flexural load for the triangular area supported is too small to generate stresses to break the lintels. The vertical breaks suggest to me that tensile stresses caused by a horizontal expansion of the backup masonry are the principal force stretching the facing leading to tensile stress cracks. A likely cause of the backup expansion is moisture growth of brick, a process that would largely have ceased about fifteen years after firing the brick. The process should be inactive now as is evident that deteriorating earlier patches fill the width of the crack. The flexural stresses are highest over the center support and likely aggravate tensile stresses over the center supports causing the breaks there. The cracked lintels appear to have dragged the top surface of the supporting posts and jambs leading to vertical cracking in them. The double span lintels now work as sets of two simple spans. These are adequate for safe support. The cracked posts and jambs should have sufficient strength to support the lintels as long as they do not shear at an oblique angle at their bottom ends.
2. Chimney. The thin cracks in the chimneys located four inches from one side or the other suggest a volumetric expansion between facing and flues one wythe in from the face. As the cracks are near the basement where hot gases would enter the chimney, I suspect that the flue bears against the facing. In cold weather, the hot liners are pushing against the cold contracted facing leading to these cracks.
3. Stone retaining walls.
  - a. Douglas Road wall. Stone coping (cap stones) admits water in head joints leading to disintegration of mortar more rapidly near the top of the wall. I did

see roots from a former tree or shrub embedded in the wall along the parking area. At the cheek walls, the dislocated stones are likely not sufficiently massive to resist earth pressures.

- b. South lot line wall. In general, the wall appears sufficiently proportioned to retain earth pressures. The dislocation of the cap stones appears the result of vehicles on the abutter's side crashing into the guard railings. The guard railings are continuous and have worked successfully to restrain the dislocated capstone from falling off the wall. The ownership of this wall is unknown to me.
- c. West lot line wall. As one moves between and further from the ends of the west wall, the stones are ever more dislocated. The dislocation is very distinct at the several trees against and on the high side of the walls. Between the trees, earth pressure appears to have overcome the mass of the wall. This is a rubble gravity wall. One in which its proportions are meant to be sufficient to resist earth pressures. As the wall is generally dislocated, I believe the proportions are undersized. The process of dislocation will continue until portions completely tip over. This is a danger to people who would be near this wall. The ownership of this wall is unknown to me.

### **Needs repair list**

Recommended economic repairs to maintain public safety and building integrity are as follows:

1. Stone window lintels. Patch the existing cracks with a mix of 70 percent granite stone dust and 30 percent white Portland cement. The intent is to provide a mix and tooling that will match the parent stone.
2. Stone jambs and posts. Strengthen the vertical cracks by installing stainless steel threaded rods perpendicular to the cracks set in Portland cement grout. Recess the pins behind the surface and patch the pins and cracks with the stone dust-Portland cement mix described above.
3. Chimney. Cut out the cracked brick and rebuild the corners. Install corner joint reinforcing every eight inches vertically. Use either custom joint reinforcing such as Stitching Anchors as made by Cintec or deformed wire joint reinforcing available from specialty reinforcing suppliers. Extend the reinforcing across the west face and return eight inches around the corners.
4. Stone retaining walls.
  - a. Douglas Road wall. Repoint the deteriorated joints along the sidewalk and parking area. Improve the deflection of water through the head joints by adding an elastomeric sealant along the bottom of the head joint, adding a weep cord on top of the sealant and then pointing the joint. The idea is to sacrifice the head joint alone with the sealant protecting joints below from water seeping through the head joints while maintaining an authentic pointed masonry wall.



Reset the dislocated stones in the cheek walls. Improve their resistance to dislocation by adding weep tubes to better drain water trapped behind them.

- b. South lot line wall. Identify the owner of the wall. If not the Town, advise the owner of dislocated capstones which if further dislocated will be a danger. If the Town, reset the dislocated capstones and repair the guard railing.
- c. West lot line wall. Identify the owner of the wall. If not the Town, advise the owner of a dangerous condition. If the Town, rebuild the wall with gravity rubble wall of proper proportions in keeping with an historic district. Remove offending trees.

Sincerely,



Arthur H. MacLeod, P.E., Principal  
MacLeod Consulting, Inc.

Attachments: Ten captioned photographs,



1. Lintel at south elevation second window opening from west.



2. Lintel at south elevation third window opening from west.





3. Lintel at south elevation fourth window opening from west.



4. Lintel at west elevation first window opening from south.

All photos are rotated 90° counterclockwise





5. West chimney west face crack at ground level.



6. Cracked stone jamb at east elevation on left side of first window from south.





7. Cracked stone jamb at east elevation on right side of first window from south.



8. Retaining wall along west property line viewed from north.





9. Retaining wall along south property line viewed from east. Coping dislocated by impact on railing.



10. Retaining wall along Douglas Road and parking area viewed from southeast. (This photo not rotated.)



## SECTION 3

### Prioritized List of Exterior Restoration and Repairs

The exterior restoration and repairs listed below are divided into four categories based on their level of importance. Within these categories, the most important repairs are listed first. The categories with descriptions are:

High Priority. The High Priority repairs are subdivided into two categories: Public Safety Concerns – Vital to the safety of people and property and General Repairs - Restoration and Repairs vital to the protection of the building, prevention of continued deterioration and loss of historic fabric. Repairs should be completed in 2012.

Medium Priority. Restoration and Repairs important to the protection of the exterior building envelope and not requiring immediate attention. Repairs should be completed in 2013-2014.

Low Priority/Normal Priority. Repairs for aesthetic value and repairs normally carried out under a scheduled maintenance plan and not involving failures of the building envelope. Repairs should be completed in 2015-2016

#### High Priority

##### Public Safety Concerns

1. Replace broken cast stone chimney capstones posing a public safety issue.
2. Replace broken mortar at Southwest chimney.
3. Repair of dislocated capstones at southern retaining wall adjacent to parking.
4. Replace steel and cast iron rails at top of southern retaining wall adjacent to parking.
5. Replace steel and cast iron rails at west egress walkway and stair.

##### General Repairs

6. Repair Windows: Reglaze, replace missing and broken glass, replace exterior perimeter caulking, repair damaged/rotted wood windows components, replace missing/broken window hardware and make windows operable and prime and paint.
7. Roof Drainage: Cleanout underground storm water piping connected to downspouts and cleanout gutters and downspouts at portico roofs,
8. Replace membrane patches at portico roofs.
9. Repair rotted wood cornice and capital at eastern portico.
10. Selective replacement of broken and missing slates.
11. Replace sealant at copper flashing into chimney.
12. Replace missing and damaged soffit vents at stair tower.
13. Repair of collapsing west retaining wall adjacent to parking.
14. Replace fencing at top of western retaining wall adjacent to parking.

Medium Priority

15. Selective repointing of exterior brick at all elevations.
16. 100% repointing of exterior brick at western gable end.
17. Repair of granite cracks at lintels and string courses.
18. Replace cracked and broken brick near window openings at south elevation
19. 100% repointing of exterior granite string courses.
20. Repair granite retaining wall along stairs to east entrance.
21. Replace areas of broken concrete walkway at eastern entrance.
22. Selective repointing of granite and brick at western and northern basement interior walls.
23. Remove organic growth from exterior wood trim, prep and paint not covered under window and rotted wood repairs.

Low Priority

24. Solder loose copper ridge hold-down clips to ridge at stair tower roof.
25. Prepare and paint iron and cast iron rails at street property lines.
26. Fix snow rail adjacent to northeast chimney.
27. Realign snow rail adjacent to southeast chimney.
28. Add bird control to roof.

# Northbridge Memorial Town Hall

## SECTION 4

### Prioritized Cost Estimate of Exterior Restoration and Repair

Description		Cost (\$)
<b>High Priority - Repairs in 2012</b>		
<b>Direct Construction Costs</b>		
Public Safety Concerns		
1	Replace 2 broken cast stone chimney capstones posing a public safety issue.	14,000
2	Replace broken mortar at Southwest chimney.	2,000
3	Repair of dislocated capstones at southern retaining wall adjacent to parking.	25,000
4	Replace steel and cast iron rails at top of western retaining wall adjacent to parking.	60,000
5	Replace steel and cast iron rails at west egress walkway and stair.	22,500
<b>Total HP Public Safety Concerns Direct Construction Cost</b>		<b>123,500</b>
<b>Indirect Construction Costs</b>		
Design Contingency (10% )		12,350
General Conditions (5%)		6,793
Overhead + Profit (8%)		11,411
Construction Contingency (10%)		15,405
<b>Total HP Public Safety Concerns Indirect Construction Cost</b>		<b>45,959</b>
<b>Total High Priority Public Safety Concerns Construction Cost</b>		<b>\$169,459</b>
General Repairs		
6	Repair Windows: Reglaze, replace missing and broken glass, replace exterior perimeter caulking, repair damaged/rotted wood windows components, replace missing/broken window hardware and make windows operable and prime and paint.	305,000
7	Roof Drainage: Cleanout underground storm water piping connected to downspouts and cleanout gutters and downspouts at portico roofs.	6,000
8	Replace membrane patches at portico roofs.	2,000
9	Repair rotted wood cornice and capital at eastern portico, prime and paint.	6,000
10	Selective replacement of broken and missing slates.	2,500
11	Replace sealant at copper flashing into chimney.	6,000
12	Replace missing and damaged soffit vents at stair tower.	2,500
13	Repair of collapsing west retaining wall adjacent to parking.	56,000
14	Replace fencing at top of western retaining wall adjacent to parking.	25,000
<b>Total HP General Repairs Direct Construction Cost</b>		<b>411,000</b>
<b>Indirect Construction Costs</b>		
Design Contingency (10% )		41,100
General Conditions (5%)		22,605
Overhead + Profit (8%)		37,976
Construction Contingency (10%)		51,268
<b>Total HP General Repairs Indirect Construction Cost</b>		<b>152,950</b>
<b>Total High Priority General Repairs Construction Cost</b>		<b>\$563,950</b>
<b>Total High Priority Construction Cost</b>		<b>\$733,409</b>



## Medium Priority - Repairs in 2013-2104

Direct Costruction Costs		
15	Selective cutting + repointing of exterior brick at all elevations	18,000
16	100% cutting +repointing of exterior brick at western gable end.	25,000
17	Repair of granite cracks at lintels and string courses.	3,000
18	Replace cracked and broken brick near window openings at south elevation	3,000
19	100% repointing of exterior granite string courses.	45,000
20	Repair granite retaining wall along stairs to east entrance.	18,000
21	Replace broken concrete walkway at eastern entrance	10,500
22	Selective repointing of granite and brick at western and northern basement interior walls.	25,000
23	Remove organic growth from exterior wood trim , prep and paint not all exterior woodwork covered under window and rotted wood repairs.	60,000
Total Medium Priority Direct Construction Costs		<b>207,500</b>

### Indirect Costruction Costs

Design Contingency (10% )	20,750
General Conditions (5%)	11,413
Overhead + Profit (8%)	19,173
Construction Contingency (10%)	25,884
Total Medium Priority Indirect Construction Costs	<b>77,219</b>

**Total Medium Priority Construction Cost      \$284,719**

## Low Priority - Repairs in 2015-2016

Direct Costruction Costs		
24	Solder loose copper ridge hold-down clips to ridge at stair tower roof	1,000
25	Prepare and paint iron and cast iron rails at street property lines	10,000
26	Fix snow rail adjacent to northeast chimney	500
27	Realign snow rail adjacent to southeast chimney	500
28	Add bird control to roof.	7,500
Total Low Priority Direct Construction Cost		<b>19,500</b>

### Indirect Costruction Costs

Design Contingency (10% )	1,950
General Conditions (5%)	1,073
Overhead + Profit (8%)	1,802
Construction Contingency (10%)	2,432
Total Low Priority Indirect Construction Cost	<b>7,257</b>

**Total Low Priority Construction Cost      \$26,757**

## CONSTRUCTION COST SUMARRY

Description	Cost (\$)
<b>High Priority Public Safety Concerns Construction Cost</b>	<b>169,459</b>
<b>High Priority General Repairs Construction Cost</b>	<b>563,950</b>
<b>Medium Priority Construction Cost</b>	<b>284,719</b>
<b>Low Priority Construction Cost</b>	<b>26,757</b>
<b>Total Construction Cost</b>	<b>\$1,044,885</b>

### Notes

- 1 Design contingency is an allowance for future design modifications/additions, which alter the cost of the repairs as the design progresses. This percentage decreases as the design progresses. 10% has been included for this level of estimate.
- 2 Construction contingency is an allowance for scope/design modifications made by the owner during construction, hidden conditons and also for unforeseen circumstances.
- 3 This estimate excludes the following:
  - Building permit fee. Waived by Town of Northbridge.
  - Owners contingency
  - Design consultant fees.
  - Owners Project Manager
  - Clerk of the Works

## **SECTION 5**

### **PRIORITIZED EXTERIOR MAINTENANCE SCHEDULE**





**Northbridge Memorial Town Hall  
Projected Exterior Maintenance Schedule**

Prepared: February 15, 2012

Time Frame	Description	Probable Cost *	Notes
Each Event	After severe storms visually inspect & repair broken storms, windows, repair leaks, repair slates and broken exterior elements.	\$10,000 - \$20,000 Repair Reserve	Reserve fund to be replenished after expenses.
Twice Annually	Clean gutters and downspouts.	Town Maintenance	
Annually	Inspect underground drainage pipes	Town Maintenance	
Every 5 Years	Detailed lift inspection of all exterior elements by preservation architect with lift. Included is: <ul style="list-style-type: none"><li>• Inspect slate and copper roofs</li><li>• Inspect caulking around windows, at trim and joints</li><li>• Inspect copper valleys &amp; flashing</li><li>• Inspect painted wood &amp; metal elements</li></ul>	\$12,000	Lift rental - \$4,000 Architectural inspection and report - \$8,000
Every 5 Years	Inspect chimneys & liners with report.	\$6,000	Includes lift
Every 5 Years	Inspect and provide spot repointing and repairs as PBO masonry, masonry joints and granite sills and chimney elements.	\$18,000	
Every 5 Years	Slate roof repairs: slates, snow guards.	\$18,000	
Every 8 Years	Prep, prime, paint exterior wood siding, trim architectural woodwork, windows and metal work.	\$150,000	
Every 10 Years	Copper roof, gutter downspout and flashing repairs	\$30,000	
Every 10 Years	Repair window glazing compound.	\$25,000	

\* General Notes:

1. Cost for police details are not included. These may be required while a lift is used.
2. Probable costs are given in 2012 dollars. No escalation, due to inflation, is given.

## **SECTION 6**

### **TASK 1 – OUTLINE SPECIFICATION**



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## NORTHBRIDGE MEMORIAL TOWN HALL TASK I - OUTLINE SPECIFICATION

### **Introduction**

- 00020 Invitation to Bid
- 00100 Instructions to Bidders
- 00300 Form of General Bid
- 00500 Agreement
- 00610 Construction Performance Bond
- 00620 Construction Payment Bond
- 00700 General Conditions
- 00800 Supplemental General Conditions
- 00850 Excerpts from Applicable State Law

### **Bidding Requirements**

- 01010 Summary of Work and Administrative Procedures
- 01025 Unit Prices
- 01030 Alternates
- 01045 Cutting and Patching
- 01300 Submittals
- 01500 Construction Facilities & Temporary Controls
- 01520 Staging, Lifts and Access
- 01580 Project Sign
- 01700 Contract Closeout
- 02070 Selective Demolition
- 02090 Lead-Containing Paint Considerations

### **Division 1 — General Requirements**

- 01100 Summary
- 01500 Temporary Facilities and Controls

### **Division 2 — Site Construction**

- 02070 Selective Demolition
- 02950 Site Restoration and Rehabilitation

### **Division 3 — Concrete**

- 03300 Cast-in-Place Concrete
- 03500 Precast Concrete

### **Division 4 — Masonry**

- 04010 Masonry Restoration

### **Division 5 — Metals – Not Used**

### **Division 6 — Wood and Plastics**



06100 Rough Carpentry  
06200 Finish Carpentry  
06900 Wood Restoration and Cleaning

**Division 7 — Thermal and Moisture Protection**

07300 Shingles, Roof Tiles, and Roof Coverings  
07600 Flashing and Sheet Metal  
07700 Roof Specialties and Accessories  
07900 Joint Sealers

**Division 8 — Doors and Windows**

08500 Windows  
08700 Hardware  
08800 Glazing

**Division 9 — Finishes**

09900 Paints and Coatings

**Division 10 — Specialties – Not Used**

**Division 11 — Equipment – Not Used**

**Division 12 — Furnishings – Not Used**

**Division 13 — Special Construction – Not Used**

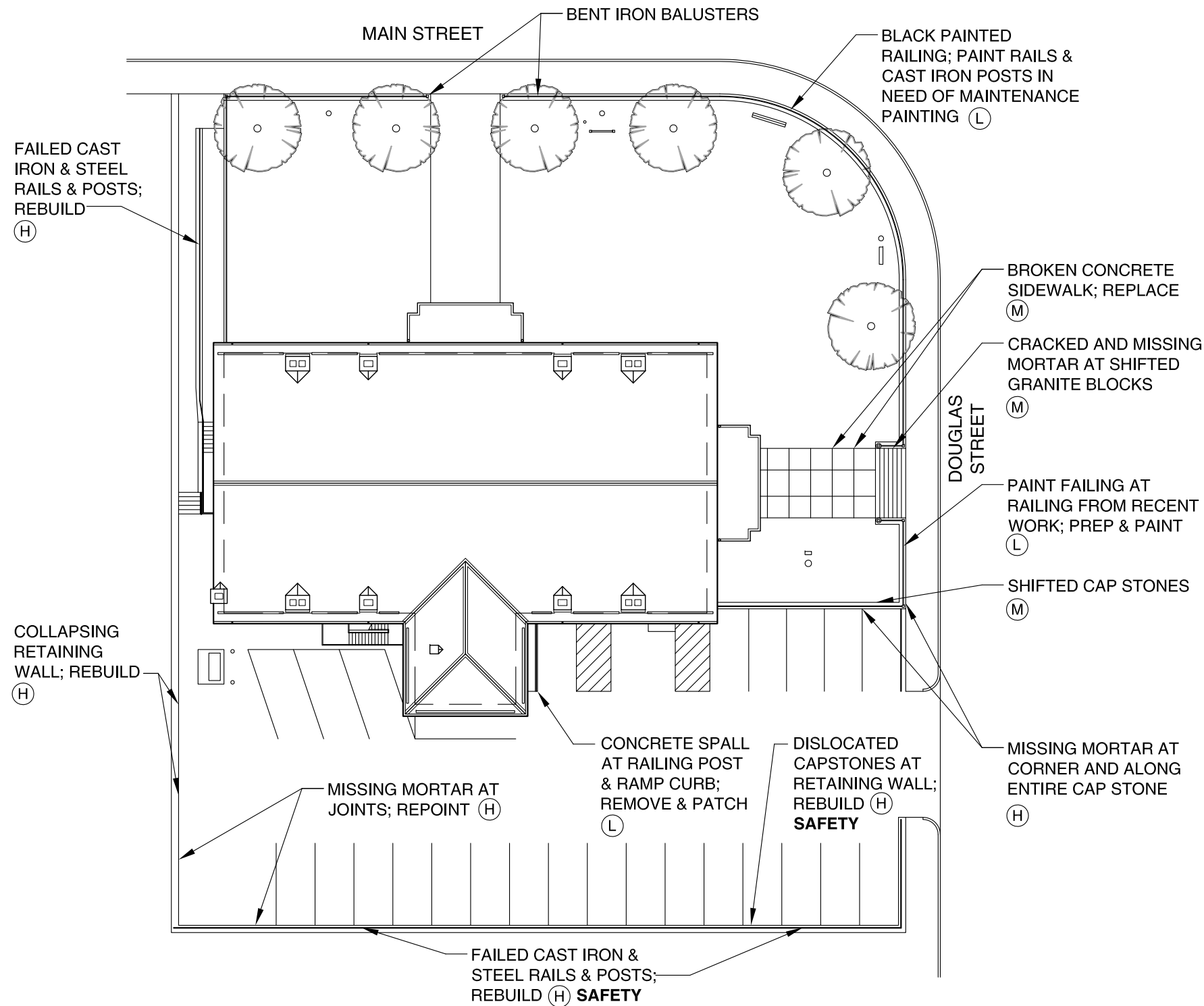
**Division 14 — Conveying Systems – Not Used**

**Division 15 — Mechanical – Not Used**

**Division 16 — Electrical – Not Used**

## **SECTION 7**

## **APPENDICES**



1 EXISTING SITE PLAN  
1" = 30'

#### PRIORITY LEGEND

SYMBOL	CATEGORY
(H)	HIGH
(M)	MEDIUM
(L)	LOW/ NORMAL MAINTENANCE

SEE REPORT FOR FULL DESCRIPTION OF PRIORITY CATEGORIES & ITEMS

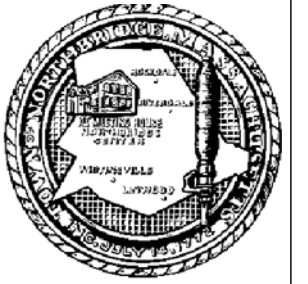
#### PRIORITIZED LIST OF EXTERIOR RESTORATION & REPAIRS

The exterior restoration and repairs illustrated in the drawings are divided into three categories based on their level of importance. The categories with descriptions are:

**High Priority.** The High Priority repairs are subdivided into two categories: Public Safety Concerns - Vital to the safety of people and property and General Repairs - Restoration and Repairs vital to the protection of the building, prevention of continued deterioration and loss of historic fabric. Repairs should be completed in 2012.

**Medium Priority.** Restoration and Repairs important to the protection of the exterior building envelope and not requiring immediate attention. Repairs should be completed in 2013-2014.

**Low Priority/Normal Priority.** Repairs for aesthetic value and repairs normally carried out under a scheduled maintenance plan and not involving failures of the building envelope. Repairs should be completed in 2015-2016



**Northbridge Memorial  
Town Hall Restoration**  
7 Main Street  
Whitinsville, MA 01588  
Town of Northbridge

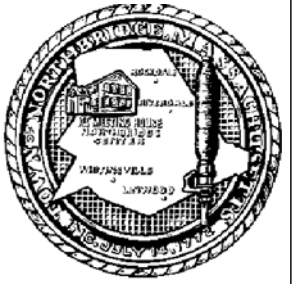
Date: 2/ 15/ 2012  
Drawn By: WJP  
Reviewed By: MGA  
Project No: 1616.00

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EXISTING  
CONDITIONS  
SITE PLAN

C1





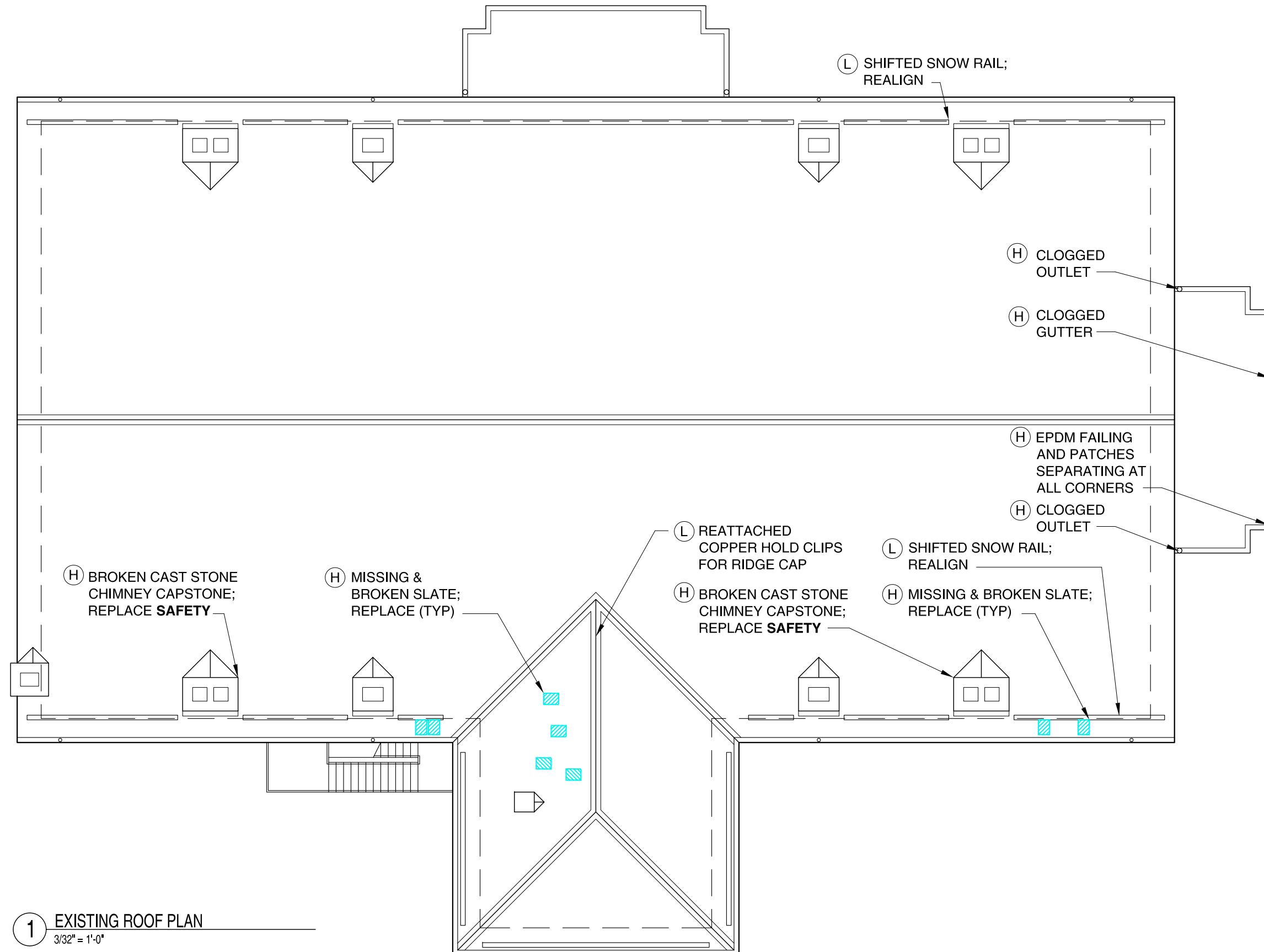
Northbridge Memorial  
Town Hall Restoration  
7 Main Street  
Whitinsville, MA 01588  
Town of Northbridge

Date:	2/ 15/ 2012
Drawn By:	WJP
Reviewed By:	MGA
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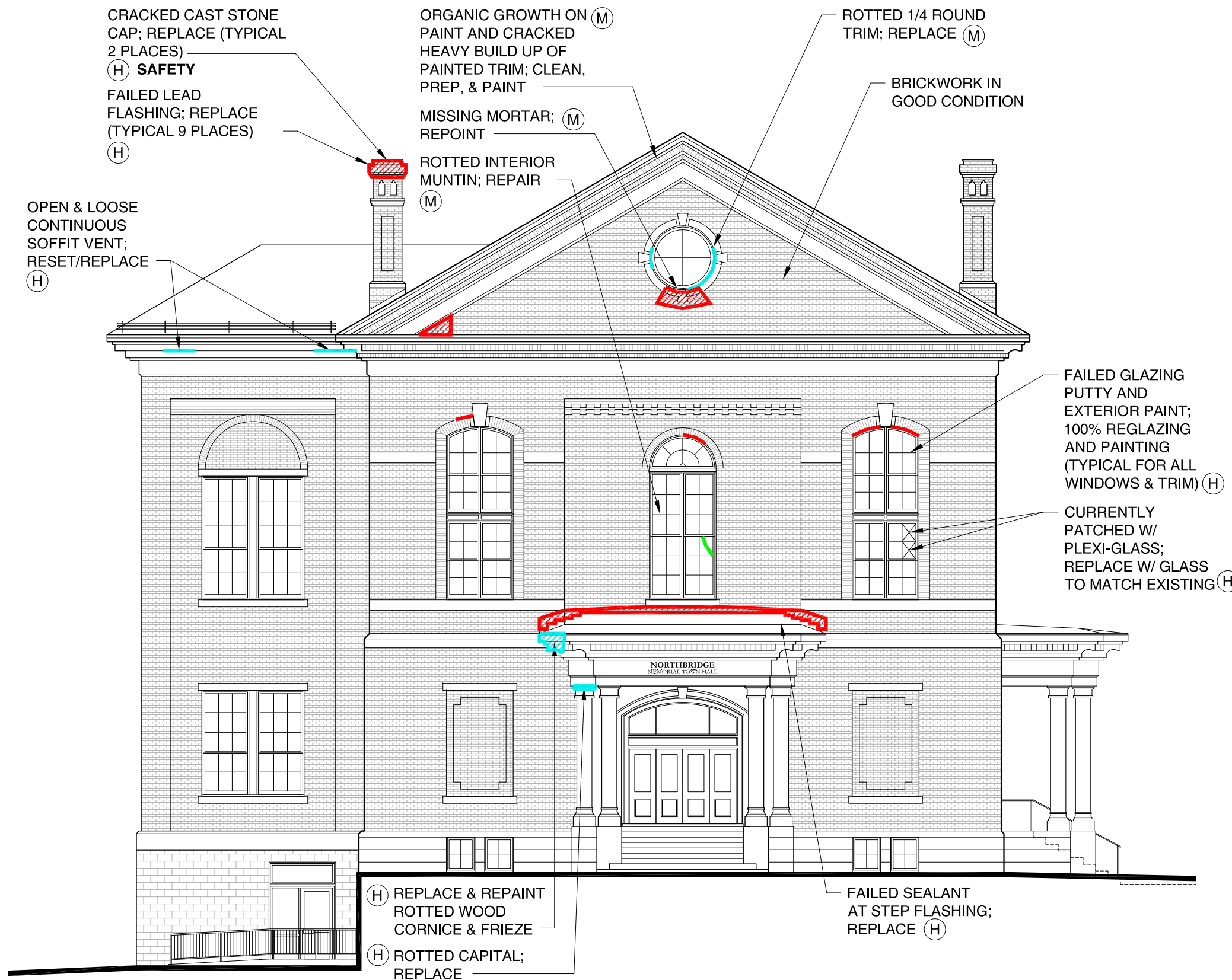


EXISTING  
CONDITIONS  
ROOF PLAN

# A1



1 EXISTING ROOF PLAN  
3/32" = 1'-0"



1 EXISTING EAST ELEVATION  
3/32" = 1'-0"

#### REPAIR LEGEND

SYMBOL	COLOR/PATTERN	DESCRIPTION
	SOLID GREEN	CRACK (MASONRY OR GLASS)
	RED HATCH	SELECTIVE CUT & REPOINT
	BLUE HATCH	REMOVE ROTTED WOOD TRIM & REPLACE TO MATCH EXISTING

#### PRIORITY LEGEND

SYMBOL	CATEGORY
(H)	HIGH
(M)	MEDIUM
(L)	LOW/ NORMAL MAINTENANCE

SEE REPORT FOR FULL DESCRIPTION OF PRIORITY CATEGORIES & ITEMS

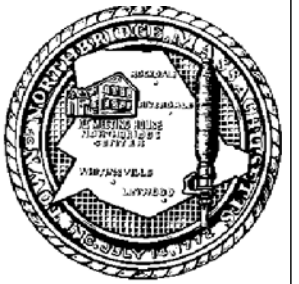
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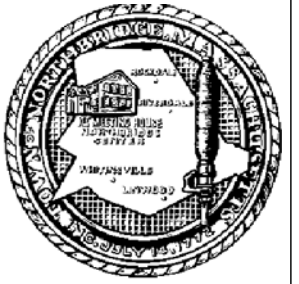
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Town Hall Restoration**  
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Town of Northbridge

Date: 2/ 15/ 2012  
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EXISTING  
CONDITIONS  
EAST  
ELEVATION

A2



Northbridge Memorial  
Town Hall Restoration  
7 Main Street

7 Main Street  
Whitinsville, MA 01588

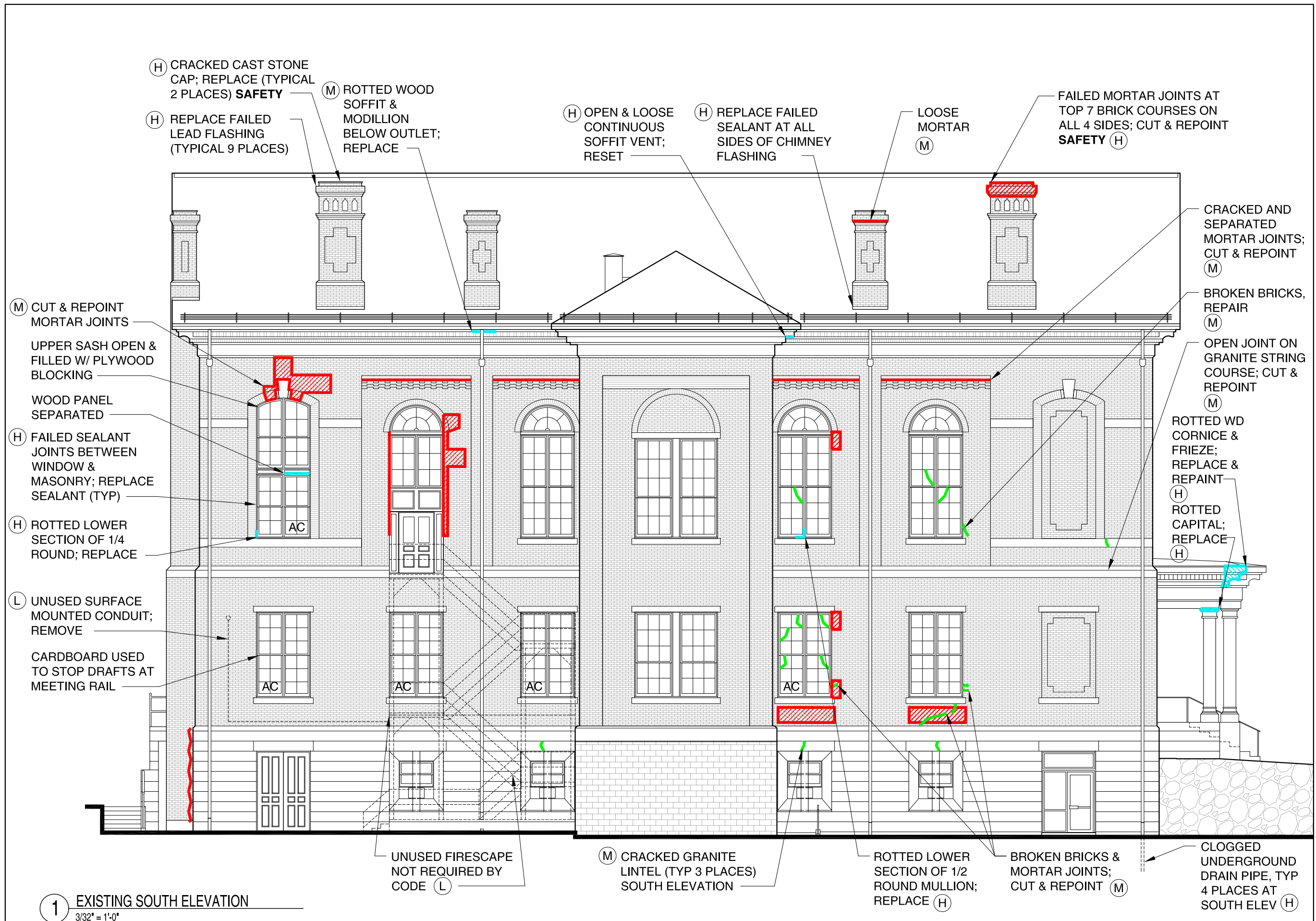
Town of Northbridge

Date:	2/ 15/ 2012
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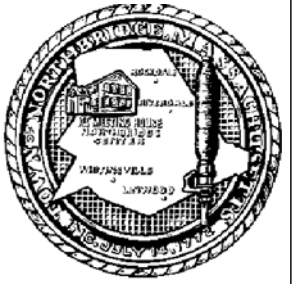


EXISTING  
CONDITIONS  
SOUTH  
ELEVATION

A3







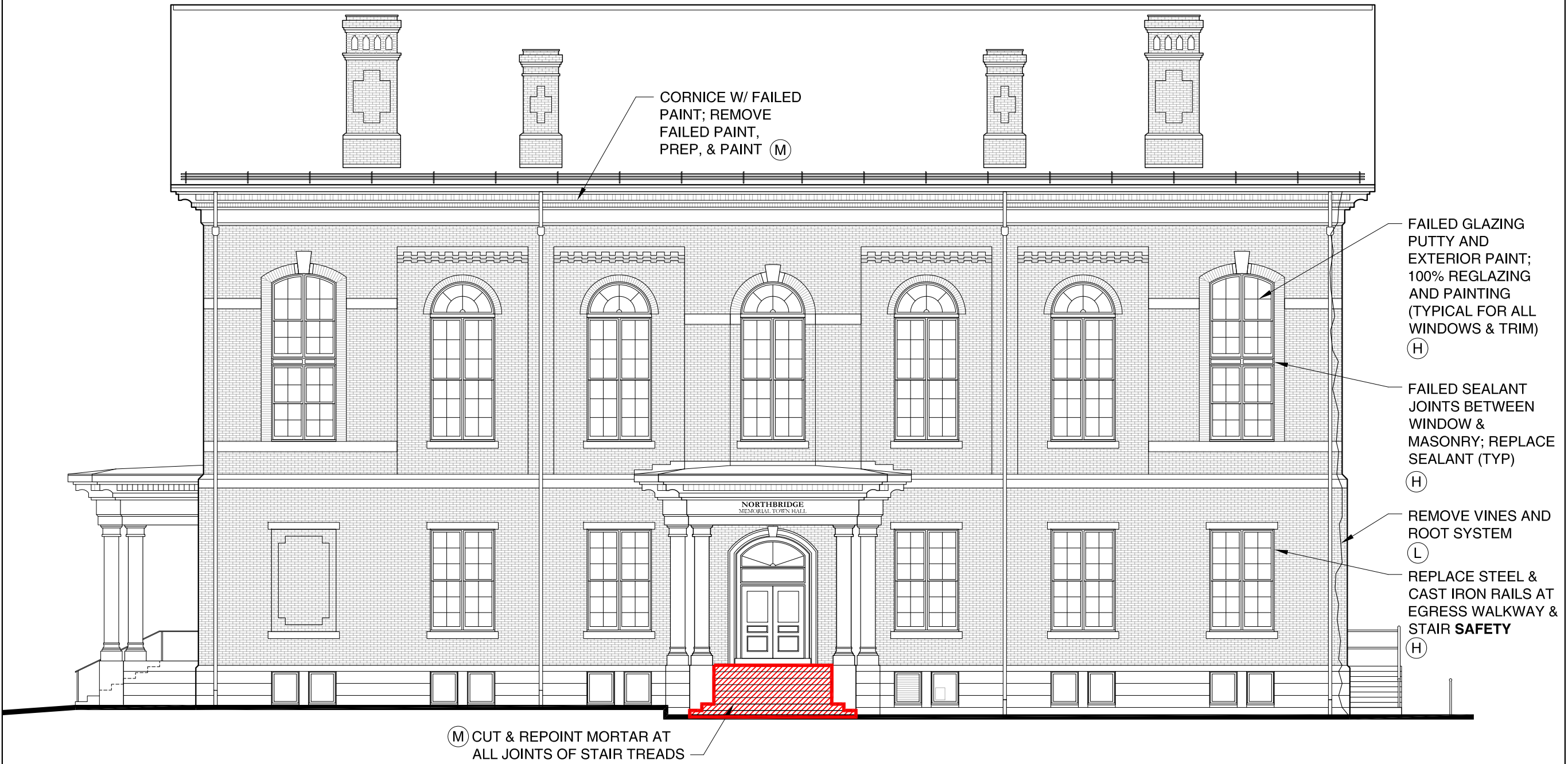
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EXISTING  
CONDITIONS  
NORTH  
ELEVATION

A4



1 EXISTING NORTH ELEVATION  
3/32" = 1'-0"



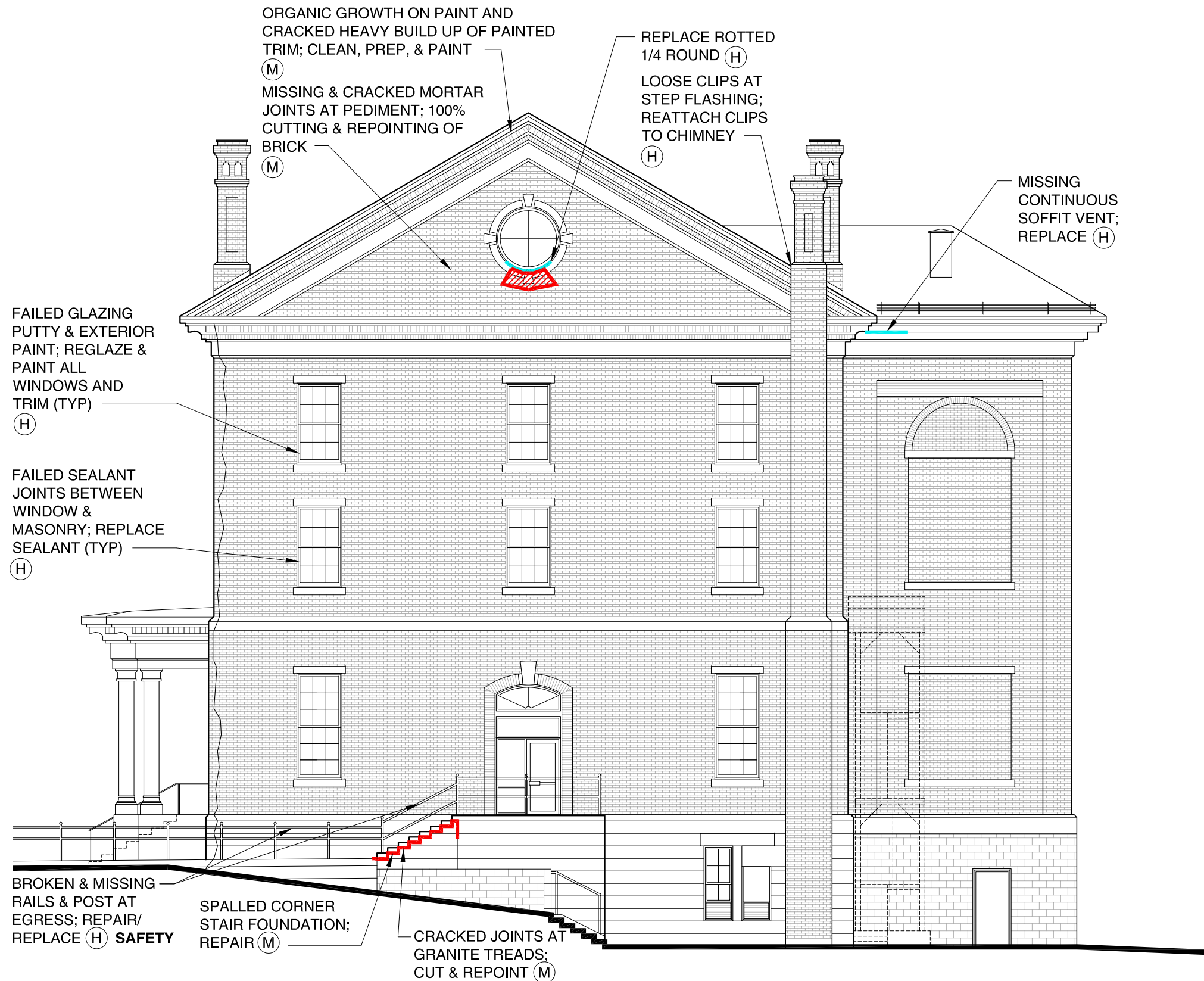
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Drawn By: WJP  
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EXISTING  
CONDITIONS  
WEST  
ELEVATION

A5



1 EXISTING WEST ELEVATION  
3/32" = 1'-0"



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